

A FIRST GEOGRAPHY OF INDIA AND PAKISTAN

BY

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WITH ILLUSTRATIONS



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PREFACE TO THE FOURTH EDITION

In this new edition numerous corrections have been made to bring the work up to date and many illustrations have been changed. The aim of the book is to introduce the geography of his own country to the young child through the medium of things he sees every day of his life. The exercises at the end of the chapters may be added to at the discretion of the teacher. As far as possible the chapters have been made applicable to the whole of India and Pakistan, but teachers would be wise to enlarge them in detail with reference to their own particular region.

I wish to thank Dr. L. Dudley Stamp for all his help and Miss B. C. Stamp for her clever interpretation of my rough drawings.

ELSA C. STAMP

CONTENTS

CHAPTER	PAGE
I. What is Geography? ...	1
II. What are India and Pakistan? ...	2
III. What kinds of People live in India and Pakistan ...	6
IV. Things People do (in the country) ...	10
V. Things People do (in the towns) ...	14
VI. Our Homes ...	17
VII. Our Food ...	23
VIII. Our Clothes ...	27
IX. Things we use every day ...	30
X. What we can learn in the Bazaar ...	34
XI. How we travel ...	39
XII. Mountains, Hills and Plains ...	50
XIII. Rivers ...	55
XIV. The Sea ...	57
XV. Something about Heat ...	62
XVI. Something about Wind ...	66
XVII. Something about Rain ...	70
XVIII. Seasons ...	76
XIX. Useful Animals and where they are found ...	77
XX. Useful Trees and where they grow ...	82
XXI. Useful Plants and where they grow ...	85
XXII. Useful Minerals and where they are found ...	90
XXIII. How the Useful Things are carried from one part to another ...	95
XXIV. Where People live ...	99
XXV. What we do for other Countries ...	105
XXVI. What other Countries can do for us ...	108

The External Boundary of India on the maps in this book
agrees with the Master copies certified by the Survey of
India.

LIST OF ILLUSTRATIONS

FIGURE	PAGE
1. This picture shows how to find the points of the compass	3
2. Map showing the boundaries of Bharat, Pakistan and surrounding countries	4
3. Indian women	7
4. A man ploughing	11
5. The bullocks are threshing grain by treading on it	12
6. A shop in a small town	15
7. A street in a town in the Punjab	19
8. A grass-thatched house	20
9. A New York 'Skyscraper'	21
10. A dak bungalow	22
11. Fishermen's huts	25
12. Tapping a rubber tree	31
13. A bazaar	35
14. A bullock-cart	40
15. A rickshaw	41
16. A railway train	42
17. A motor-bus	44
18. A motor-car	44
19. A fishing boat	45
20. Catamarans	46
21. A river steamer	47
22. An ocean liner	48
23. Diagram showing mountains, hills and a plain	50
24. A plateau	51
25. A man pouring water on a sloping table	52
26. Map showing mountains, plains and rivers	53
27. A rough sea and cliffs	58
28. Mangrove trees at low tide	59
29. The eternal snows on the Himalaya Mountains	63
30. India and Pakistan during the S. W. Monsoon (The arrows show the direction of the wind)	68

FIGURE		PAGE
31.	India and Pakistan during the N.E. Monsoon	69
32.	The man with an umbrella	72
33.	Diagram showing the rain shadow in Peninsular India	73
34.	India and Pakistan during the S. W. Monsoon	74
35.	Water buffaloes	78
36.	Elephants carrying logs of woods	80
37.	Useful trees, and where they grow	83
38.	Map showing where some of the useful plants are grown	86
39.	Coconut palms growing round a village	87
40.	Map showing where some other useful plants are grown	88
41.	Oil wells	92
42.	Map showing where the useful minerals are found	93
43.	Map showing the chief railway lines	96
44.	Map showing the fertile lands	100
45.	Map showing where most of the people live	101
46.	Map showing the chief towns and cities	102

A FIRST GEOGRAPHY OF INDIA AND PAKISTAN

CHAPTER I

WHAT IS GEOGRAPHY ?

GEOGRAPHY teaches us all about the land in which we live and about other lands too. It is like the tales which friends tell us when they return home from a long journey during which they have seen many strange things and people. It tells us what the country looks like, whether there are mountains, whether there are rivers, and where they flow, and how they reach the sea. It tells us, too, about the kinds of trees and plants that grow in that country, why they grow there, and how the people use them. It describes the people, and shows us how they live and what work they do, and how they go from one place to another. We learn that big ships go across the sea to other countries carrying all sorts of useful things which we have too much of, but which other people want, and how those people send us back the things we want.

We learn from geography why it is sometimes very hot and sometimes cold and why the rain falls. We learn, too, why the wind blows sometimes from one place and sometimes from another. We have to know just how hot it is and how much rain falls in any place, and whether the land is fertile, because some plants like a lot of heat and rain and fertile soil, while others do not.

We are going to learn in this book about the geography of our part of Asia, the land in which lie the Republics of India and Pakistan, that is, about all the things we do and see and what they can teach us.

EXERCISES

1. What is the name of the land in which you are living?
2. Are there any big mountains or rivers near your school, and if so, what are they called?
3. What is the name of your village or town, and what other villages or towns are there near it?

CHAPTER II

WHAT ARE INDIA AND PAKISTAN?

CLEVER people tell us that the earth on which we live is a big round ball just like the sun or the moon. If we set out from home towards the sunrise and travelled far enough in that direction we should one day reach home again. When we travel round the world in any other direction too we always arrive at the place from which we started. People who have travelled round the world tell us that its surface is covered by land and water. The land we call 'continents' and the water we call 'oceans'. Most of the continents are very, very big and are divided into smaller pieces of land called 'countries'. The places where the water and land meet are called 'coast-lines'. We use the word 'sea' to mean the water of the ocean.

Now let us think about the piece of land in which we live. Sometimes when we say 'India' we mean both the Republic of India and the Republic of Pakistan which were

separated in 1947. The separation we call Partition. India is divided into smaller pieces of land called 'states'. Both India and Pakistan are countries and are part of the continent of Asia.

1. **The Points of the Compass.**—Stand up and stretch out your arms sideways and turn round so that your *right* arm is pointing towards the sunrise and your *left* arm

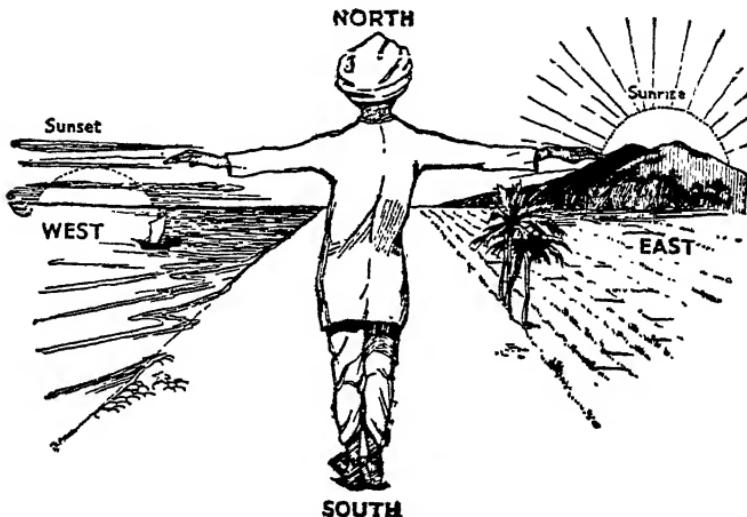


FIG. 1.—This picture shows how to find the points of the compass.

towards the sunset. You are then facing *north* and behind you is the *south*, your right arm is pointing *east* and your left arm is pointing *west*. Fig. 1 shows us a boy doing this exercise. When we draw and study maps we shall usually make the top of the map north, the bottom south, the right-hand side the east, and the left-hand side the west.

2. **The Boundaries of India and Pakistan.**—There is no country joining us on the south-west, south, or south-east.

Instead we find the sea. On the north-west, north, and north-east we find land. So we can say:



SIKKIM AND BHUTAN STATES ARE ATTACHED TO INDIA BY SPECIAL TREATIES

FIG. 2.—Map showing the boundaries of Bharat, Pakistan and surrounding countries.

(a) India and Pakistan are bounded on the south-west by the Arabian Sea, on the south by the Indian Ocean, and on the south-east by the Bay of Bengal.

(b) India and Pakistan are bounded on the north-west by the countries of Iran (Persia) and Afghanistan, on the north by Tibet and on the north-east by Burma. Until 1947 the whole of India and Pakistan was under one government. Now they are quite separate.

(c) Notice in Fig. 2 the island of Ceylon to the south-east of India lying in the Indian Ocean and separated from India by a very narrow strip of the sea called Palk Strait.

3. The Size of India and Pakistan.—Look at Fig. 2 again and notice carefully the boundaries and the shape of the countries. If we could travel straight by a bullock-cart, going fifteen miles a day, it would take about one hundred and thirty-three days to go from the most northerly point to the most southerly point of India. And if we travelled across the widest part of the two countries from east to west at the same rate, it would take us one hundred and forty-seven days; and if we travelled all round the coast-line, it would take us more than two hundred and fifty days. So you see India and Pakistan are very large countries indeed. We could not really make these journeys, because in many places there are no roads for bullock-carts, but these numbers of days will help you to realise how big the countries are.

In this chapter we have been looking at Fig. 2, which is a map of the sub-continent. You all know what a picture is. On a small piece of paper you can draw pictures of houses, mountains, or rivers. A map is very like a picture. Try to imagine that you are in an aeroplane or that you have wings and have flown high up into the air and are looking down upon the earth. You would be able to see the country for many miles in every direction. Now imagine that you have either taken a photograph or drawn a picture of what you saw. A map is very like that picture, but is simpler and has only the chief things you saw marked upon it. If you find it difficult to understand a map, always

remember that it is like a picture of a country as seen from a great height.

EXERCISES

1. If you go towards the sun when it is rising, in what direction are you walking?
2. What is the shape of the earth?
3. What is the name of the continent of which India is a part?
4. Draw a picture to show how you would find the points of the compass.
5. If you were travelling from (a) Madras to Bombay, (b) Delhi to Calcutta, (c) Agra to Simla, (d) Calcutta to Karachi, in which directions would you be travelling? Look at your map to answer this question.
6. What do you mean by the word 'map'?

CHAPTER III

WHAT KINDS OF PEOPLE LIVE IN INDIA AND PAKISTAN ?

THIS is rather a difficult question to answer, but perhaps we shall find it a little easier if we learn a bit about the history of India. Dividing India from Tibet on the north is a great range of mountains called the Himalayas (Figure 26). In the extreme north-west corner of Pakistan there are one or two passes or gateways through which people who live in the cold countries beyond have come from time to time. We call the comings of these peoples 'invasions'. Thousands and thousands of years ago there lived in India some people about whom little is known. They were not very strong and when their country was invaded by the Dravidians from the north, the Pre-Dravidians, as these people were called, were driven into

the mountainous country in the south of India and into Ceylon. Some of the people in Ceylon, called Veddas, are



FIG. 3.—Indian women.

supposed to be descendants of these Pre-Dravidians. They are people who wear very little clothing and worship spirits

of the jungle and live on wild fruits of the forests.

The Dravidians were in their turn driven south by latter invaders, the Aryans. The Dravidians now live in Southern India in Madras, Mysore, and Andhra. They are mostly Hindus by religion and speak chiefly Tamil and Telugu. The Aryans settled in the northern part of India and ruled the people there. They were Hindus by religion and spoke a language quite different from that of the Dravidian people. Their language was rather like those languages spoken in Europe and is said to belong to the great group of Indo-European languages. They now live chiefly in the north of India. Their descendants speak several languages, but the chief one is Hindi.

The rule of the Aryans was overthrown by the Muslims, whose religion is still the chief one in the north-west (West Pakistan) and in parts of Bengal (East Pakistan). In the north-west they speak chiefly Urdu and Punjabi, whilst in Bengal they speak Bengali.

You must remember that after each invasion the new people did not remain separate, but mixed with the people who were in the country before them. So we see that in Bengal there are both Hindus and Muslims, but they nearly all speak Bengali; and in the Punjab there are also Muslims and Hindus, but they all speak Punjabi. In the north most of the Muslims are now in Pakistan, the Hindus in India.

Last of all came the Europeans. They did not settle in India and make it their home as did the Aryans and Muslims, and they did not come by the land, but by the sea.

In the wild, hilly parts of India we find backward hill tribes who are rather different from the rest of the people. Their religion is called 'animism', which means the worship of spirits. Near the coasts we find many people who have

become Christians, the religion of the Europeans. Before we leave this chapter we must mention the Sikhs, the Jains, and the Parsees. These are not very numerous when compared with the Hindus and Muslims. They belong to what are called 'cultures'. That means they have certain rules by which they govern their lives. The Sikhs live mainly in and near Amritsar. They are usually tall people, and the men wear long flowing beards. The Jains live in Rajasthan and near Bombay, while the Parsees live almost entirely in the city of Bombay itself.

Although we are not going to deal with Ceylon in this book, we must mention the Cingalese or Sinhalese who live in Ceylon. These people are very different from those who live in Southern India and are, indeed, more like the Northern Indians. They are Buddhists by religion, and it is thought that they came to Ceylon from the north of India by sea instead of by land as the people of Southern India came. Ceylon has a government which is quite separate from that of India.

Let us try to collect some of the facts we have learned in this chapter.

1. The Pre-Dravidian people—now represented by the wild Veddas of Ceylon. They were driven southwards by—
2. The Dravidian people, who now live in Southern India and whose chief languages are Tamil and Telugu. They were driven southwards by—
3. The Aryans, who speak Indo-European languages, the chief of which is Hindi. They were followed by—
4. The Muslims, whom we find chiefly in West Pakistan where they speak Punjabi and Urdu, and in Bengal where they mostly speak Bengali.
5. The Sikhs, Jains, and Parsees are some of the less important peoples of India as far as numbers are concerned.

EXERCISES

1. Who were the chief people living in India when the Muslims came?
2. What do you understand by the word 'invasion'? How did the invaders reach India?
3. Where do the Animists, Sikhs, Jains and Christians live?
4. What is the language spoken by the majority of the people of (a) Bharat (b) Pakistan?

CHAPTER IV

THINGS PEOPLE DO (IN THE COUNTRY)

NEARLY everybody in India and Pakistan has to do work of some kind to earn his living, and some people have to work very hard indeed. As we have seen in the last chapter, there are many different kinds of people living in India and Pakistan and they do many different kinds of work. But most of the people in India and Pakistan earn their living by growing things in the land. These people are called 'farmers'. They till the soil and make their money by selling their crops. Tilling the soil is called 'agriculture', and we say that India and Pakistan are agricultural countries because about eighty out of every hundred people earn their living in this way.

All the farmers in India and Pakistan do not grow the same crops because the climate in some parts is very different from that in others. You will learn more about that word 'climate' later on in this book. But just now all we need to know is a simple meaning of the word. Climate means the state of the weather in any place over a large number of years. It means the amount of rain that falls every year, for we can have a very wet or a wet, or a dry or a very dry climate. It means, too, how hot the weather is at different

times of the year. We may have a place that is always hot or always cold, or sometimes hot and sometimes cold. Climate means many other things as well, but we need not know about them yet.

If you happen to be living in the Lower Ganga Valley, somewhere between Patna and Calcutta, you will know all about the growing of paddy. You will know that paddy

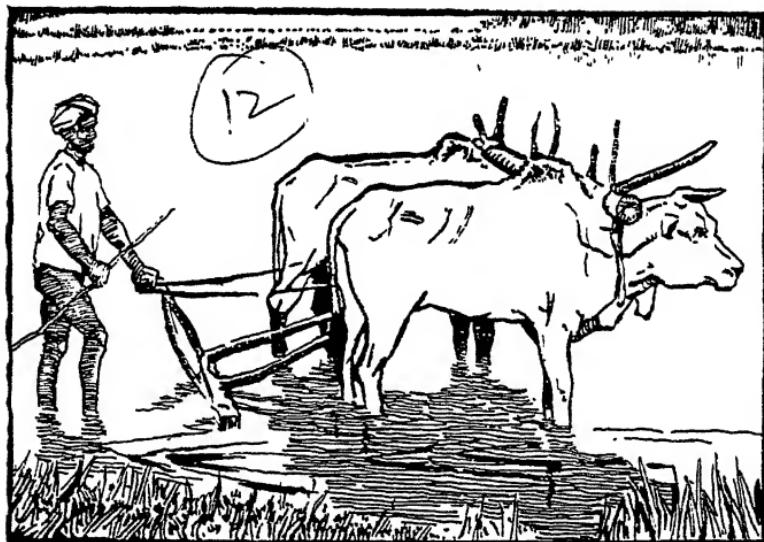


FIG. 4.—A man ploughing.

likes to grow in a hot country where there is plenty of water, especially while the little paddy plants are growing. You will have seen your father and big brothers go out into the paddy fields with their plough drawn by the bullocks. Fig. 4 shows you a picture of a man ploughing a paddy field. After they have ploughed the fields they plant the seed in one or two tiny fields and wait until the little plants are a few inches high. They then replant these little

paddy plants in the other fields, which are flooded with water. The paddy ripens after the rains and is harvested, in many parts of India, about December. The harvest is a very busy time for the farmer. Everybody in his house has to help cut and bind the paddy and then carry it back to the village, where it is threshed by the oxen or by hand. If you live in the Punjab you will not eat much rice and

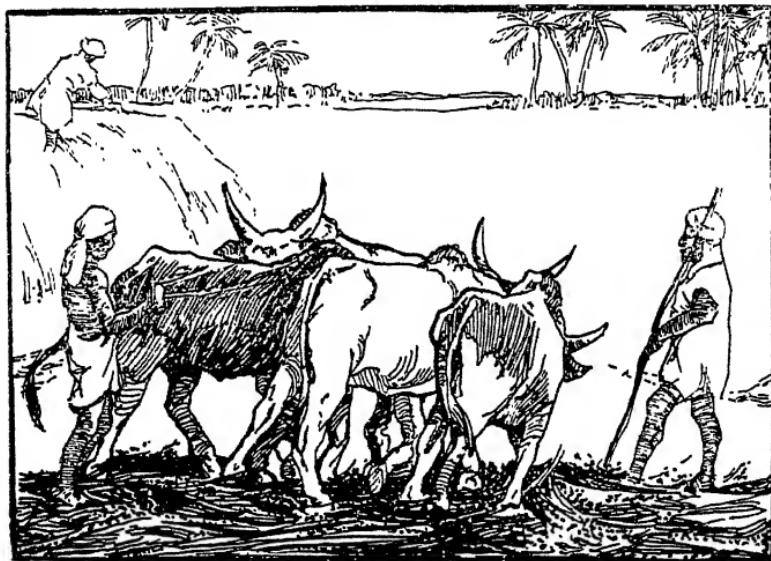


FIG. 5.—The bullocks are threshing grain by treading on it.

you may not have seen it growing. There, the farmers grow another grain plant called wheat. Wheat is rather different from paddy and does not like the same kind of climate. It is usually sown in the cold weather after the rains and is harvested before the sun gets very hot in the hot weather. We find wheat growing in the Punjab, round Delhi, and in Uttar Pradesh. A little is grown on the plateau of Peninsular India.

If you live on the plateau of Peninsular India, you must have seen millet growing. It is another grain plant like paddy and wheat. Just as the people in the Punjab eat wheat and people in the Lower Ganga Valley eat rice, so the people of Peninsular India eat large quantities of millet. Millet is a much smaller grain than rice or wheat, but it likes a warmer climate than the wheat plant and a drier climate than the paddy. It is therefore easier to grow millet in Peninsular India than either wheat or paddy.

There is still another grain plant which is grown in the dry or moderately wet parts of India. This plant is called maize.

Bullocks are used to cultivate the lands. Most Indian farmers own some bullocks, and those of you who live on a farm know how valuable these animals are to the farmer. They draw the bullock-carts, they plough the fields, and they thresh the grain.

Before we leave the Indian farmer, let us see what else he grows on his farm. If he is living on the plateau of Peninsular India he will most likely grow a small bush whose fruits look like soft white balls when they burst open with the sun. This plant is called cotton. We use the white fluffy part for making cotton cloth. Sometimes the farmer's wife spins the cotton and weaves it into cloth; sometimes the farmer sells the 'raw' cotton to the people who live in big towns, and it is taken to big houses called factories, and finally is woven into cloth. We shall hear more about this later on.

There is still another plant which the farmer grows on the wet hill-slopes of Assam, Bengal, Southern India, and Ceylon. That plant is called tea, the leaves of which are used to make the drink of what we are all so fond.

Now let us see how the country women of India help the farmers. They live most of their lives in their homes.

They cook the food, look after the children, draw the water, and keep their houses clean and tidy. They work as hard as the men, who are stronger and can bear the heat of the sun more easily than can the women.

EXERCISES

1. Draw a picture of a man ploughing a paddy field.
2. Supposing you were a farmer living on the plateau of Peninsular India, what would you grow?
3. What animals besides bullocks help people who live in the country? Draw a picture of each kind you mention.
4. Ask some of your friends how their fathers earn their living and see how many different ways you can find.
5. Draw a picture of your father's bullock-cart or someone's bullock-cart in which you have ridden.
6. At what time of the year is the harvest near your home? What is the chief food grain you use?

CHAPTER V

THINGS PEOPLE DO (IN THE TOWNS)

If you have ever lived in or visited a big town you will know that the townspeople earn their living in many different ways. One of the favourite ways of earning a living in a town is to keep a shop. Even villages sometimes have shops, but in a town there are many shops. All shops do not sell the same things. There are shops where you can buy cloth for your clothes, others where you can buy chatties, pots and pans and lamps. Some shops sell things to eat, while others sell furniture. All shopkeepers (as the people who look after the shops are called) make money by selling things to you. If your father has grown so much paddy or wheat that he can afford to sell some instead of keeping it all to feed his family, he sells it to a shopkeeper. The shopkeeper sells it to somebody else, but he makes

him pay more for it than he gave your father. This he calls his 'profit'. Fig. 6 shows a shop in a small town.

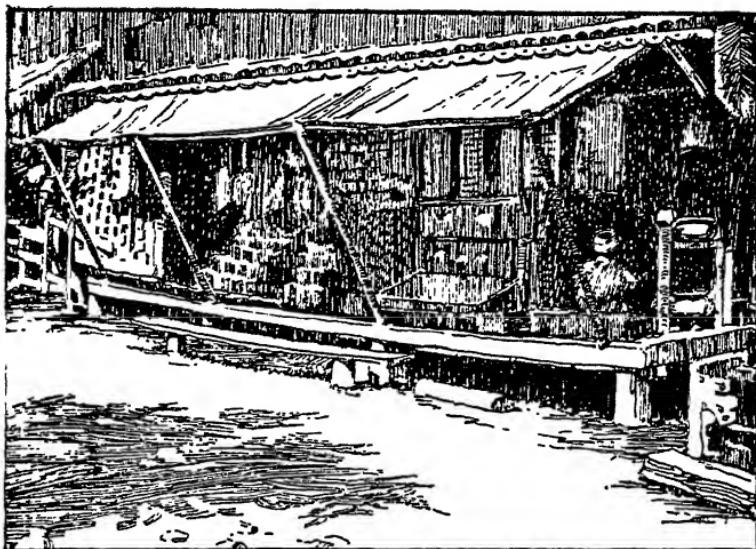


FIG. 6.—A shop in a small town.

Let us see how other people earn their living in a town. There are the coolies who carry our luggage for us or push the hand-carts. There are the coolies who pull rickshaws and others who mend the roads and help to build the houses. Then there are the people who drive the gharries and motor-cars, while others drive the buses or collect money from the passengers. Other people drive steamboats or railway trains, or act as guards and signal-men. There are people who work in the post and telegraph offices.

In big towns, such as Bombay and Calcutta, there are big factories where thousands of people work making cotton cloth (Bombay) and gunny bags made from jute (Calcutta).

But in the north of India, especially in the Punjab and the Ganga plains, people found houses made of bamboo alone were too cold in the cold season, so they plastered the bamboo walls with mud which dried in the sun. This gave them a good thick wall and kept out both the winter cold and summer heat. Where there were no bamboo forests, the people have learned to make clay bricks, which they bake hard in the sunshine. There is no hard stone or rocks for many, many miles, so most of the houses we see in Northern India are built of mud or of these sun-baked bricks.

In the Punjab and in West Pakistan we find most of the houses have flat tops. There is very little rain in these places and so it is not necessary to have a sloping roof to a house. People often use these flat roofs in the hot season for sleeping out-of-doors, for it is very, very hot indeed inside the houses. Fig. 7 shows a street in the Punjab.

Houses in India and Pakistan are usually built on the ground, the earth itself being beaten down to form a hard mud floor. In some places where the river overflows its banks every year and all the country round is flooded the houses are built on mounds of earth so as to keep them dry when the floods come. This often happens in the Ganga Delta in West Bengal and in East Pakistan.

The roofs of houses in the very wet, rainy parts of the two countries have to be sloped so as to allow the rain to run off easily instead of soaking through into the rooms. These roofs are made either with a thatching of grass or leaves or with sheets of corrugated iron. This new second way is better than the older first way because the rain-water runs off the corrugated iron much more easily than off the thatched grass or leaves. In fact, it cannot sink through the iron unless there is a hole somewhere in it. Fig. 8 shows a picture of a grass-thatched house.

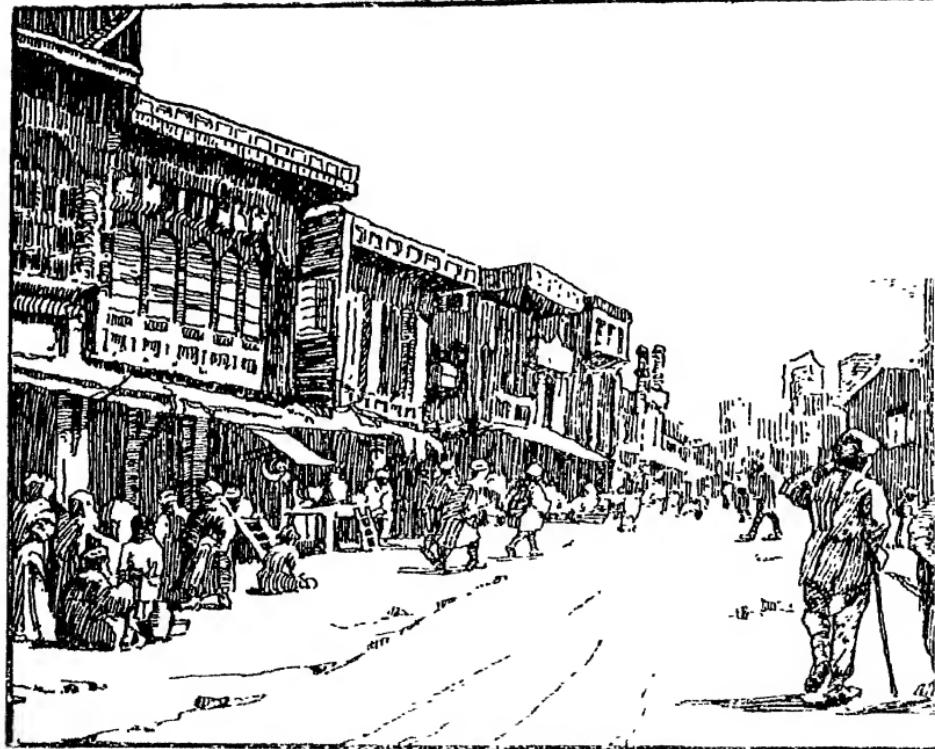


FIG. 7.—A street in a town in the Punjab. Notice the flat-t



opped houses.

There is one other thing we must notice about our houses. Most of the houses in the country are one-storey buildings. That means that when you enter the house and look up towards the sky you will see the roof of the house. In other words, inside a one-storied house there is only the roof between you and the sky above you.



FIG. 8.—A grass-thatched house.

In the towns most of the houses are two- or three-storied. That means that if you entered one of these two-storied houses from the street and looked upwards, you would see a flat ceiling which formed the floor of the room above you. You would see a staircase leading up to that room. If you went up the staircase and entered the room above, you would see the roof. If it had three storeys, you would see another ceiling and another staircase leading still farther upwards to another room above you. People found that

many more persons can live on a piece of ground if the houses have two or three storeys. You can imagine one family would live on the ground floor (on a level with the street), a second family on the first floor, and a third family



FIG. 9.—A New York 'skyscraper'. (New York is very cold in winter, and then snow falls.)

on the second floor. In a town, where many people want to live close together, land is very dear to buy. So it becomes cheaper and easier to build houses with two or three storeys. One day you will learn about a big city called New York in a country called the United States of America. In this city, land is so very dear that the buildings often have as many as thirty or forty storeys. Fig. 9 shows a picture of a New York 'skyscraper', as these tall

buildings are called. So you see if land is costly, people build upwards instead of outwards on the ground.

Very often houses in India and Pakistan have a little piece of land enclosed by a mud wall at the side or in front of the house. This enclosed piece of land is used as a pen for the cattle, which are driven into it every night. Sometimes at

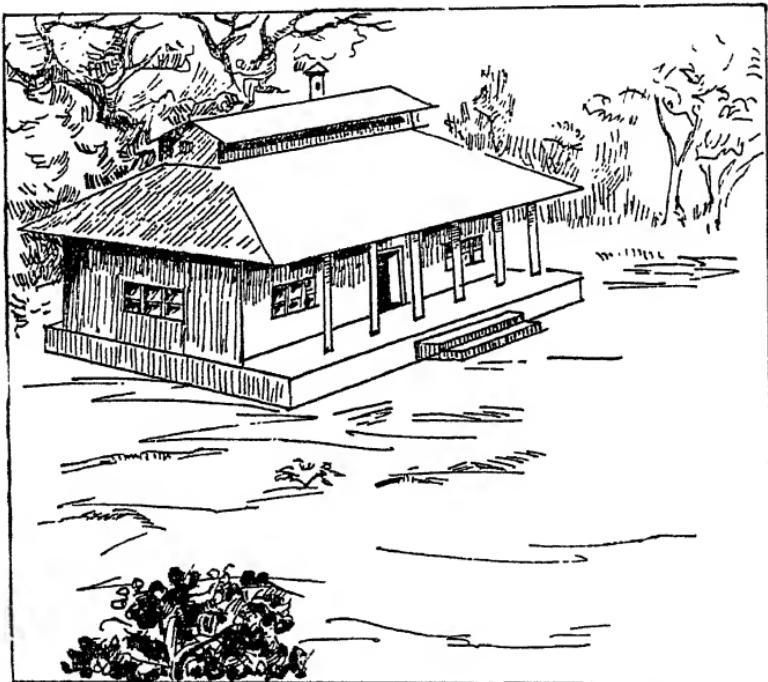


FIG. 10.—A dak bungalow.

the back of the house there is another enclosed space which is used as a garden. Many of these gardens are very beautiful, especially if they belong to rich people, who spend a great deal of money on them.

When a man travels he must have some place to sleep in. Have you ever seen a dâk bungalow or a P.W.D. (Public

Works Department) rest-house? These houses are usually built of brick and covered with plaster. We find them all over the country, and they are used chiefly by Government officials who have to travel from one place to another. Fig. 10 shows a picture of a *dak* bungalow.

EXERCISES

1. Of what things is your house built? Draw a picture of it.
2. How are the houses in a town different from those in the country?
3. Make a model in cardboard and clay of any house you have visited.
4. Draw a picture of a mosque *or* a temple *or* a church. For what are these buildings used?
5. What is a *dak* bungalow?
6. Why are houses of many storeys built in towns?
7. What is a 'skyscraper'? In which city are there many 'skyscrapers'?

CHAPTER VII

OUR FOOD

IN Chapter III we talked about all the different sorts of people that are living in India and Pakistan. When we come to talk about our food we must remember that all people do not like to eat the same things, and they like to have their food cooked in different ways. Usually there is one thing which forms the chief part of our food and we eat more of this than anything else. Where there is a great deal of rain and the country is flat, such as in the Lower Ganga Valley, the chief or 'staple' food of the people is *rice*. Rice is called a 'grain', and in order to be well and strong we must eat a grain of some kind. To grow well the paddy plants must have a hot climate with plenty of rain. Later on, when we speak about the climate of India and Pakistan, we shall see that the best places for growing paddy are in

the Lower Ganga and Brahmaputra valleys and along the east and south-west coasts.

In other parts there is not so much rain, and we find another grain called *millet* being grown. Millet forms the staple food of the people living in the Deccan, in Central and Peninsular India, in the south-east of the Punjab, and in Rajasthan. There are different kinds of millet. There is bajra or great millet, and chumba or spiked millet. In the greater part of the Punjab and along the upper and middle valleys of the Ganga *wheat* is grown. This is still another grain, which wants more water than millet and is grown during the cold season. Where there is not enough rain for the wheat plants, men dig canals and water their fields with the water these canals bring from the rivers. This way of watering fields is called 'irrigation'. Along with the wheat *barley*, another grain, is often grown.

There is still another rather important grain, which is grown nearly all over the sub-continent and which forms the staple food of a few people living in the hilly districts. This grain is called *maize* or Indian corn and is used as food for cattle as well as for men.

Almost everywhere in India and Pakistan people grow vegetables of different kinds, such as peas, beans, lentils, chillies, onions, tomatoes, etc.

People eat many other things besides. Some people are very fond of various nuts. We often use coconut in our curries, while groundnuts (which are nuts but which grow underground) are often roasted or eaten raw. In some places betel-nuts are eaten; they are the nuts of the betel-nut palm. Nuts are good for us to eat, especially if we do not eat meat, because they contain oil, which is necessary as a part of our food. We also eat many kinds of fruits, such as limes, oranges, durians, papaya, pineapples, plantains, mangoes, custard-apples, plums, and many others.

Fish is another important food, especially along the coast-lands of India. Many people living on the shores of the Indian Ocean earn their living by fishing. Sometimes the fish caught are dried and salted. When this is done the fish can be kept for a long time without going bad. So it can be sent to places where there are no fish to be caught. Men catch fish, too, in the big rivers, but these river fish

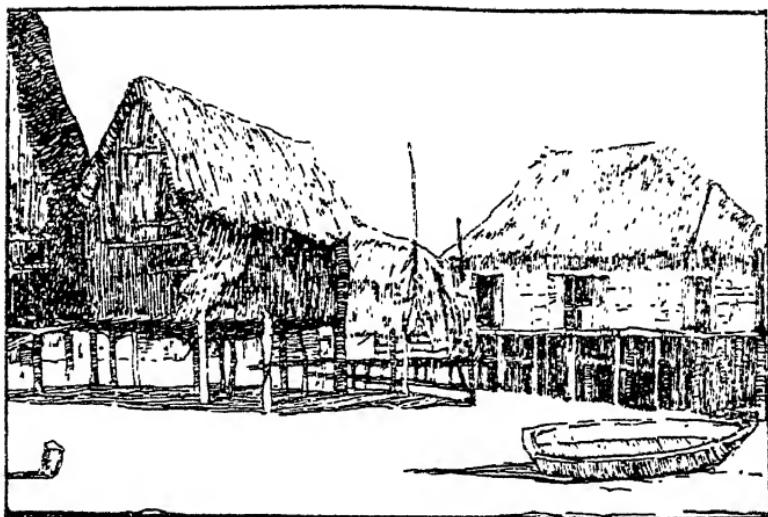


FIG. 11.—Fishermen's huts.

are different from the sea fish. In the south of the Madras State, the fishermen dive for pearl oysters. These fish are not used as food, but sometimes the divers find beautiful pearls inside the shells. Fig. 11 shows us the homes of some of these men.

Some people do not eat meat of any kind. They live on fruit, nuts, some sort of grain such as rice, wheat, or millet and vegetables. Some of the Hindus eat goats' meat and mutton, but not beef, for the cow is a sacred animal. The

Muslims will eat beef, goats' meat and mutton, but not pork, because they say the pig is an unclean animal. We flavour our food with all kinds of spices like pepper, some people using one kind of spice and some another. There is one thing that most people like—especially boys and girls—and that is the sugar-cane. The sugar-cane is good for us to eat, because in order to keep healthy people must have sugar in some form. We can buy jaggery and other sweetmeats too which give us the sugar so good for us to eat.

When the big ships come to India and Pakistan they sometimes bring food in them. The food they bring is rather different from the food we are used to having in our own country, but to-day many Indians and Pakistanis have learned to like it, and so in nearly all bazaars we can buy this food, a good deal of which is now being produced in our own country. Perhaps the things we like best are called 'biscuits', which are little flat cakes baked quite hard. They are packed tightly in tins, so that they are just as nice when we buy them here as they were when they left the factories where they are made. Some very rich people buy all sorts of 'European food', as we call that food which the big ships bring from Europe.

What do we use to cook our food? In order that our food may taste delicious we use some sort of fat or oil. Some of us use sesamum oil, others coconut oil, others groundnut oil, and still others butter or *ghee*. Just as people must eat some sort of grain to keep well and strong, so must they have some sort of fat or oil.

Let us think about the things we drink. The commonest drink of all, of course, is water, which we get from wells or streams. Sometimes we make tea by pouring boiling water upon tea-leaves. We grow tea for ourselves in Assam, but we also buy a little from Ceylon. Some of us also drink

coffee, which is thicker than tea and has a much stronger flavour. There is also a water, which has little bubbles in it and tingles our mouths when we drink it. This is called soda-water and the bubbles are put into it by machinery. There are many other drinks too which have bubbles in them like soda-water, but are flavoured with fruit or other juice. These are called mineral waters. There are ginger-beer, lemonade, coca-cola, orangeade, and many others. Some people like to drink milk by itself or mixed with tea or coffee. As most of the cows in India and Pakistan do not give much milk we sometimes buy milk in tins. This milk comes from Europe with the other European goods.

Later on you will learn where all these foods come from and how they are produced.

EXERCISES

1. Name three grain foods eaten in India. Collect a little of each and bring it to school.
2. What is 'European food'? If you have ever tasted any 'European food' say what it was called and how it tasted.
3. Draw a picture of a woman making food, and name all the things she uses.
4. What does your mother put into your food?
5. What kinds of fruits do you like best? Draw pictures of these fruits.

CHAPTER VIII

OUR CLOTHES

THERE are so many different kinds of people living in India and Pakistan that it would not be possible to describe all their clothes. Let us therefore take just a few well-known

types. Nearly all people in the two countries make their clothes of cotton material because it is cheap to buy, cool to wear, and easy to wash. Sometimes the cotton material is white, but sometimes it is coloured. The commonest form of dress for a man is a *dhoti* and a *kurta* or shirt. The *dhoti* is a long piece of material which is tied round the waist and is either allowed to fall straight down to the feet or is draped and twisted between the legs so as to form a very loose pair of trousers. The *kurta* or shirt is worn over the *dhoti*, and is sometimes plain and sometimes split up at the sides. The commonest dress for women is a *sari*, which is a straight piece of material many yards long which is wound round the waist so as to form a full skirt and one end is flung over the shoulder or sometimes the head. Under the *sari* a little tight bodice is worn.

It is the custom of many people in India to spend all their savings on jewellery for the women instead of putting the money into a bank. We therefore see women wearing many bangles, anklets, ear-rings, and things of gold and silver which show what a lot of money their husbands or fathers have saved. Some of the poor women who cannot buy gold and silver jewellery wear bangles of pretty-coloured glass which tinkle as they walk.

Some of the rich people have beautiful clothes made of silk and embroidered with gold.

The Muslims, especially in the north, wear shoes, often with long pointed toes which curve upwards. The women wear a veil over their faces and long loose trousers like a man's. Some of the Muslim men wear round red caps of felt upon their heads. These caps usually have a long black tassel hanging down one side. Sometimes we see Hindus wearing little flat round hats, often embroidered with gold thread; others wear small long-shaped caps made of very fine muslin. But the commonest hat of all is the turban,

which is really just a long piece of material which is wound round and round the head. The turban is often white, but sometimes coloured green, red, or yellow. Some of them are very beautifully made, while others are wound quite carelessly round the head.

The poor people often wear very few clothes indeed. They tie a piece of stuff round their waists like a *dhoti*, but tuck it up so that their legs are free to do their hard work. Sometimes they wear an old shirt, and usually a thick piece of stuff is wound round their heads so that they can carry heavy weights without hurting themselves. There is another class of men who also wear very poor clothes. These men are *fakirs* or holy men, who wander about from place to place, living on food which good people give them. Men who live in the mountains have to wear warm clothes, and we find them dressed in cloth made of wool instead of cotton, and sometimes when it is very cold they wear clothes made from the skins of animals.

Many Indians now wear what are called European clothes. These men wear long trousers, a shirt which is tucked inside the trousers and is not allowed to hang down as the *kurta* does. Over the shirt is worn a coat in which there are many pockets. The hat is made of cork or pith to protect the wearer from the hot rays of the sun. Some Europeans cannot bear our hot sunshine because it gives them heatstroke. Many wear dark glasses to protect their eyes from the bright sunshine. European shoes are very different from ours. They are smaller and without patterns on them. Although many Indian men have adopted European dress, very few Indian ladies wear clothes like those of a European lady. They prefer to wear their own beautiful *saris*. Even they, however, sometimes wear the European shoes and stockings, which are very comfortable and dainty.

EXERCISES

1. When you go home from school, notice how all the people you pass are dressed, and see how many different kinds you can find.
2. Draw a picture of a Punjabi, Madrasi or Bengali man or woman.
3. In what ways do the clothes of a person living in the mountains differ from your own?
4. Draw a picture of a woman wearing a *sari* and anklets.

CHAPTER IX

THINGS WE USE EVERY DAY

I WONDER how many of us have looked at many of the things we use day by day and have thought about how they were made and where they came from? When we go home from school in the afternoon we find our mother preparing our evening meal. She has pots and pans and bowls in which she cooks our food. If we look at these cooking-pots we may find that some are made of a yellow metal called brass. Some people use cooking-pots made of a reddish-yellow metal called copper or a dark grey metal called iron. Most of the brass and copper pots are made in India. They may have come from Delhi or Banaras, or they may have been made in our own town. If we could visit Banaras we should find large quantities of brass-work for sale in the bazaars. Some of it is quite plain and is used for cooking or for serving our food. Some of it has beautiful patterns engraved upon it and coloured red and black. This brass-work is sold as ornaments to decorate our homes, but quite a lot of it is sent to England and other countries where the people like to have beautiful Indian bowls and tables to decorate their homes.

Rich people often have soft rugs on their floors. These rugs are made of wool and are woven into pretty patterns in bright colours. India is famous for her beautiful rugs and carpets, which are made chiefly in the north and north-west.

Now let us look around our classroom. The desks at which we are sitting are most likely made of teak or sal.



FIG. 12.—Tapping a rubber tree. Notice the juice running down into the little cup on the ground.

There are forests in India where the teak and sal trees grow. These trees are cut down and the wood is taken to the saw-mills to be cut into planks, and then these planks are sold for building houses or making furniture or bullock-carts. Lying in front of us on the desk is a fountain-pen. It is black and is made of a material called 'vulcanite'. If you could visit Kerala, you would see rubber trees

growing there. The bark of the rubber tree is cut into slits and the rubber, as the juice of the tree is called, runs out of the slit into a little cup and is afterwards made into all sorts of useful things, many of which we use every day. The next time we see a motor-car let us notice its rubber tyres. Vulcanite is made from rubber which has been treated in a certain way so that it becomes quite hard. Our old friend, the piece of India-rubber, with which we try to rub out our mistakes, also comes from the rubber tree. Fig 12 shows us a rubber tree being tapped.

The book we are holding in our hands is printed on paper, and if it could tell us how it became paper, what an interesting story that would be. The paper may have begun life as a tall pine tree in a forest far away in another country. That country may have been Canada or it may have been Japan or Sweden. It was felled and floated down a river to a paper-mill, where it was cut up very finely until it became pulp. This pulp was then made by machinery into paper and sent to the place, where the book was printed. While we are talking about pine trees let us examine that box of matches on the teacher's desk. They too are made of pine wood. We buy matches which have been made in India, but the best kinds come from Sweden.

What is all that noise about? It is only a motor-car hooting to a bullock-cart to make room for it to pass. The motor-car was made in America or England and was sent across the sea to us in a big ship, but the bullock-cart was made by a man who lives in our own town. In some parts of India the farmers build their own carts, but they usually buy the wheels from a man, called a wheelwright, who makes them. Wheels are very difficult to make, so they are generally made by a man who has learnt to make them when he was a boy and has made them all his life. The

bullock-cart was loaded with bricks for that big house just along the road. The bricks are made of clay, which is cut into oblong shapes and is baked in a kiln. Sometimes the sun in our country is so hot that people just leave the clay bricks out in the sun to bake. These are called 'sun-baked' bricks, but they are not so strong as the kiln-baked ones.

Let us look round our classroom once more and see what else we can learn. The duster that our teacher uses to clean the blackboard is made of cotton. It, like the paper, would have a very interesting story if it could tell us how it reached our school. It is made of cheap cotton material and very likely it began its life in India as part of the fruit of the cotton plant. If you live on the Central Deccan you will have seen cotton growing. The cotton plant is a fairly small shrub which has fruit called 'bolls'. When the bolls are ripe they split open and a white fluffy substance appears. This is made up of many tiny threads of cotton so fine and so silky that we can hardly see a single thread by itself. The fluffy part is gathered by hand and is packed into big bundles called bales. Some of these bales go to the cotton-mills in Bombay or Kanpur, but a number go across the sea to cotton-mills abroad. When these bales reach the mills they are undone and the cotton is cleaned and prepared so that it can be spun into yarn. The yarn is then woven into cloth and the cloth is sent to the bazaars, where we can buy it. Indian cotton is not so good because the little threads of cotton are too short to be spun into very fine yarn. So you see the best cotton comes to us from the other countries, chiefly from the United States of America. The U.S.A., however, does not send us raw cotton (cotton before it has been made up into cloth), but she sends it to Lancashire (a part of England) where it is made up into nice fine cloth which is sent out to us.

When the sun sets and the darkness comes, in many village homes mother lights the lamp or candles. The oil she burns in the lamp is called kerosene and comes from abroad. Kerosene is made from crude oil obtained from rocks in the ground. When the crude oil, 'petroleum', first comes out of the ground it is thick and dark in colour. It is then refined. The finest part is called petrol, which is used to work the engine of a motor-car. Another part, called kerosene, is burnt in our lamps, and a third part, called petroleum wax, is made into candles.

EXERCISES

1. Imagine that you are this book. Draw a picture of yourself and tell a story about your life.
2. What is petroleum? What useful things do we get from it?
3. Name twelve things you use which were made in our country.
4. Name twelve things you use which were made in another country.
5. Try to make a model of a bullock-cart in bamboo or wood. You may not be able to make the bullocks, but you can use round tin lids for the wheels.
6. Write the story of the life of the duster in your classroom.

CHAPTER X

WHAT WE CAN LEARN IN THE BAZAAR

In the last three chapters we have spoken about our clothes, our food, and things we use every day of our lives. In this chapter we are going to pay a visit to the bazaar, the place where we can buy all the things we need in our daily life. In some towns there are special marketing days, and if we go out early in the morning we find all sorts of

people bringing goods to sell in the bazaar. Everybody who has something to sell brings it into the town to the



FIG. 13.—A bazaar.

bazaar. There goes a man driving a flock of goats. He has many more at home, and does not want to keep those he is driving before him. So he is bringing them to the bazaar to sell to some one else who has not got enough goats of his own. Perhaps he is going to sell them to a

man who will kill them and sell their flesh as meat. But whoever the buyer is, he will pay the owner of the goats some money with which he will buy something—perhaps some rice or wheat for his wife and children to eat.

That bullock-cart over there is full of paddy. The farmer who is driving the cart had a very good harvest this year and so, after he had stored enough rice for himself and his family for the year, he decided to sell all that was left over. The farmer wants another bullock for his new plough, so he will buy one with the money he makes by selling his paddy. There goes a woman carrying a basket of fish on her head. Her sons caught them this morning in the river. She is going to buy a new *sari* with the money she makes by selling her fish. This bullock-cart is filled with vegetables, and that one with fruit. Their owners will sell their goods in the bazaar and will buy clothes or sandals or kerosene for the lamps with the money they receive. Over there are three women friends who have come to the bazaar to buy things only and not to sell. Their husbands have given them money to spend and there is no need for them to sell something in the bazaar before they make their purchases. The husband of the tall woman works as a clerk in a bank, while the husbands of the other two work in the post office. Close beside them, bargaining with the old woman selling mangoes, is the servant of the rich man, who lives in that big bungalow on the hill overlooking the town. He is buying fruit for his master's breakfast.

All this time we have been watching people spending 'money'. Why do they use money? Why do they not exchange grain for *saris* or fish or vegetables? A long time ago they used to do this, but sometimes it was very difficult to make a fair exchange. Perhaps a man wanted to sell a great deal of grain, but he did not want to buy

as many things as the grain was worth. So people invented money, which always has the same value and can buy anything. In India, coins called rupees and paise made of nickel are used. So you see that if a man sold ten rupees' worth of paddy he could buy four rupees' worth of fish and vegetables and take the other six rupees home in his pocket.

All the goods we have spoken about so far (except the *sari*) are things which have been grown or made in the district near the bazaar. Let us now go inside the bazaar and we shall see many things which last a long time and do not perish as food does. Many of these things have come from long distances. There is a stall of brass-work which was made in Banaras. The keeper of the stall bought his goods from another man who had bought them from the makers in Banaras. All his brass-work we call his stock. He sells it to us at a slightly higher price than he paid for it, and so makes some money which is called his 'profits'. Next door is an ironmonger's stall. Here we can buy nails, screws, padlocks, and all kinds of tools. The man who is selling them to us bought them from some one else, just as the brass-stall keeper did. The nails, locks, tools, etc., are called his stock, and he makes his profits just as the other man did. Now let us visit that cotton-goods stall. Here we can buy muslins and fine cloths for *saris*, thicker cloths for shirts, and bright-coloured cloths for window curtains. Some of these materials were made in Bombay, while others came from Lancashire in England and from Japan. The people who made the cotton goods sold them in large quantities to a certain man, who sold them again to this stall-keeper and to many other stall-keepers in other bazaars. The man who bought them from the makers is called a 'wholesale dealer', because he buys large quantities of cotton goods from many makers and sells them

to many stall-keepers. Many of these wholesale men are very rich and have large businesses. If the brass-stall keeper does not sell all his stock on one bazaar day, he keeps it in his stall until he can sell it. From time to time he buys new stock from the wholesale dealer. The same thing is true of the ironmongery and cotton-stall keepers. In the case of the cloth-stall keeper, for those goods which came from another country, there were many wholesale dealers between him and the makers. As all these wholesale dealers expect to make a profit on their goods, foreign cottons are often dear to buy. If we lived in the country where the goods were made we could buy them for less money. Not only have the wholesale firms made their profits, but the steamer which brought the goods to India or Pakistan charged money for carrying them. Then, too, the Government makes people pay money for bringing goods into the country. That money is called 'Customs Duty'. All these things—wholesale dealers' profits, carriage, and customs duty—make foreign goods expensive. Let us sum up the kinds of things which are sold in the bazaar.

1. **Local goods.**—Foodstuffs and things made in the district near the bazaar. These things are generally brought into the bazaar in small quantities and sold quickly.

2. **Goods brought from other parts of India.**—These are often kept in stock for a long time, Brass, some cotton goods, cheroots and cigarettes, and pottery are some of this type of goods.

3. **Foreign goods.**—Tinned goods, some kinds of cloth, watches, some crockery, small machines, many special tools and medicines are some of the foreign goods sold in the bazaar. Many of these have come from other countries sometimes thousands of miles away.

EXERCISES

1. How many different kinds of coins are used in India? Name them.
2. Draw a picture of anything you have bought in the bazaar which has come from another country.
3. Who is a 'wholesale dealer'? How does he make his money?
4. What are local goods? Name six things in your bazaar which are local goods and draw pictures of them.
5. Why are foreign goods dear to buy?

CHAPTER XI

HOW WE TRAVEL

WE have spoken about travellers and travelling several times already in this book, but we have yet to learn about all the different ways of travelling in India. Every traveller must go from one place to another by land or water or air. Let us first see what are the chief ways of travelling by land.

1. **Bullock-carts.**—We have all seen bullock-carts and perhaps have travelled in one. It is a very old way of travelling, because everybody who owns two bullocks can make a cart for himself and his family. It takes a long, long time to get from one place to another by a bullock-cart, for the bullocks do not travel much more than fifteen miles a day. So a bullock-cart is said to be a very slow means of travelling. Fig. 14 shows us a picture of a bullock-cart. In some parts of India, buffaloes are used to pull carts.

2. **Ekkas.**—In Northern India there are small carts called ekkas. They have seats arranged so that the passengers ride sideways, but they cannot carry as many people as a bullock-cart. They are drawn by ponies, which can

trot along the roads much more quickly than the bullocks do.

3. **Mules, horses, and camels.**—In some parts of India, where roads are too steep and stony for bullock-carts, mules are used to carry goods from one place to another. These animals are very sure-footed and can travel over rough country with packs on their backs. Horses are sometimes used for riding in India, but not very often.



FIG. 14.—A bullock-cart.

Many of the horses in this country are used by police, soldiers, or for racing. In the very dry parts of north-west India, especially in the Thar Desert, and in Sind, in Pakistan, camels are used to take goods from one place to another. The desert is the home of the camel. He does not mind poor food and can go a long while without drinking. His feet, too, are made in such a way that he does not sink into the loose sand. So you see 'the ship of the desert', as he is often called, is a very useful animal in dry sandy places.

4. **Rickshaws.**—In some of the big towns in India there are rickshaws drawn by men. Fig. 15 is a picture of a rickshaw. It is a little carriage on two wheels with two shafts in front, and the man who pulls it runs between them. The rickshaw is a very old way of travelling and was probably invented by the Japanese. Many countries do not have rickshaws now because the life of the puller is hard.



FIG. 15.—A rickshaw.

The man soon gets very tired, and so we cannot travel a long way in a rickshaw. Some places have rickshaws drawn by cycles.

5. **Tikka Gharries.**—We find small carriages in some big towns called tikka gharries. They too are used only for short journeys. If you live on one side of a big town and you wish to visit a friend who lives on the other side, you

might call a gharry to take you there. Gharries and rickshaws can only go on good roads, but the gharries can travel farther than the rickshaws, because a horse can run farther than man without becoming too tired.

Bullock-carts, ekkas, mules, horses, camels, rickshaws, and tikka gharries are the *old* ways of travelling by land.

When the Europeans came to India to live, they taught us how to travel quickly and for very long distances without stopping to change bullocks or horses. Let us see how many ways there are in which the Europeans have taught us to travel.

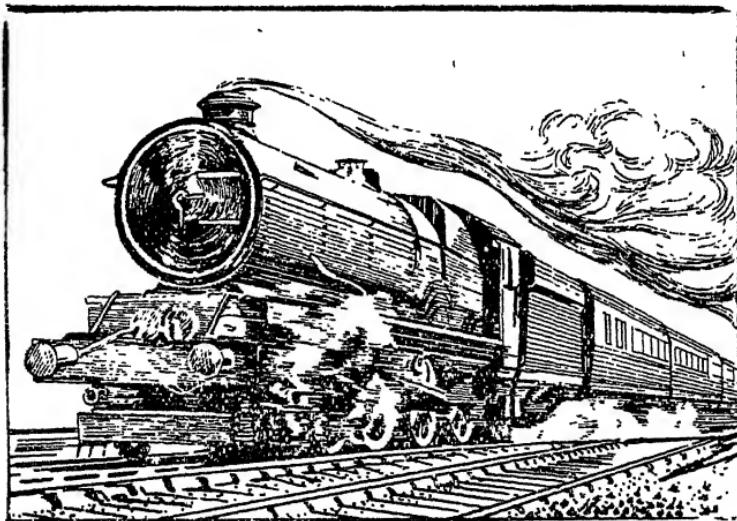


FIG. 16.—Railway train.

1. **Railways.**—The most important way of travelling quickly at present is by railway. Some clever men in England over one hundred years ago discovered how to build railways and to make railway engines and trains. A railway engine will travel for hundreds of miles without stopping, unless you want it to, provided it has enough coal and water. Fig. 16 is a picture of a railway train. The thing which pulls

the train is called the engine. A fire is lighted inside the engine and that fire boils the water in the boiler and the boiling water gives off steam. The steam somehow makes the wheels go round and the engine drags the train just as the bullocks drag the cart.

A train runs on two pieces of steel called 'rails'. These rails are laid down and nailed to pieces of wood called 'sleepers' resting on the ground. They are always a certain distance apart in each railway. In India and Pakistan in some railways that distance is 5 feet 6 inches, while in others it is 3 feet $3\frac{3}{8}$ inches. This distance is called the 'gauge' of the railway. We talk about the railways with a 5 feet 6 inches or broad gauge, or with a 3 feet $3\frac{3}{8}$ inches or metre gauge. We cannot stop a train just anywhere we may happen to want it, but we have to go to proper stopping places called 'stations'. At the station we buy our tickets and look at the 'time table', which tells us when our train is expected to arrive. We can travel nearly all over India and Pakistan by train, and we can send goods quickly by the railways from one place to another.

2. **Tramcars.**—The Europeans have built tramways in some of the big towns. They are a little bit like railways, for they too run on rails and we cannot see an animal pulling them. But they are run by electricity and not by steam.

3. **Motor-cars and motor-buses.**—Motor-cars and buses are driven by petrol and not by electricity or steam. They do not travel on rails like the trains and tramcars, but can go anywhere provided the road is fairly good. They are very comfortable—even more comfortable than a rickshaw. (Fig. 17 shows you a picture of a motor-bus and Fig. 18 a picture of a motor-car.)

4. **Aeroplanes.**—Aeroplanes are now being much used in India for carrying letters, and most of us must have seen one.

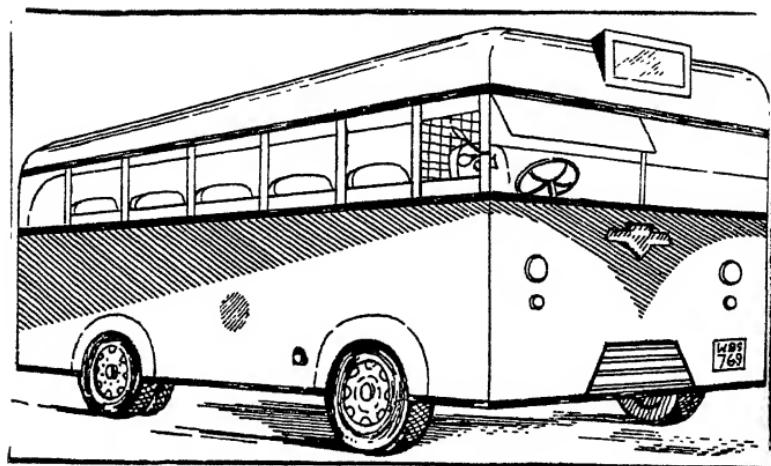


FIG. 17.—A motor-bus.



FIG. 18.—A motor-car.

They are machines with wings like a great bird and they can fly in the sky from one place to another. In some countries men are using them a great deal, but they cannot build them cheaply enough for them to be used by everybody, as trains, tramcars, and motors are.

We call railways, tramcars, motor-cars, motor-buses and aeroplanes new ways of travelling. Now let us see how we can travel by water, and let us take first, the chief old ways of travelling by water.

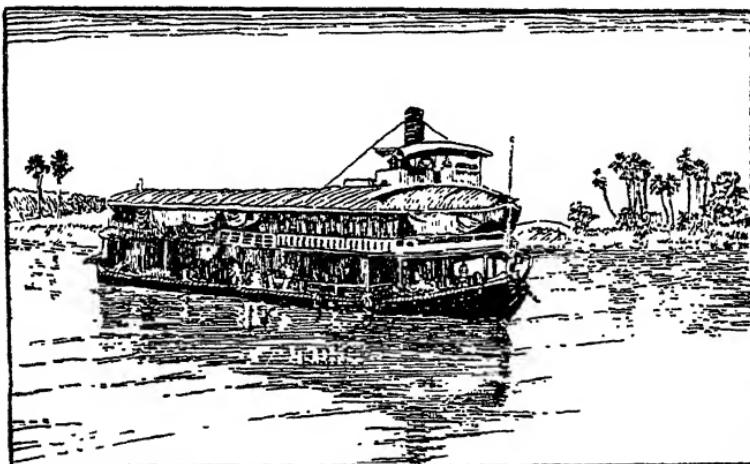


FIG. 19.—A fishing boat.

1. **Dugouts.**—These are the little canoes which are just trunks of big trees which have been dug out to form a boat. These are used chiefly by people living in the Ganga delta district.

2. **Country Boats.**—These boats are used for the same purposes as the dugouts, but are more carefully made, more comfortable, and safer. Both country boats and dugouts are sent along by paddles.

3. **Fishing Boats.**—All along the coasts of Peninsular India we can see fishing-boats of various kinds. Fig. 19 shows us a picture of a big fishing boat which travels by the force of steam. Look at Fig. 20, which shows

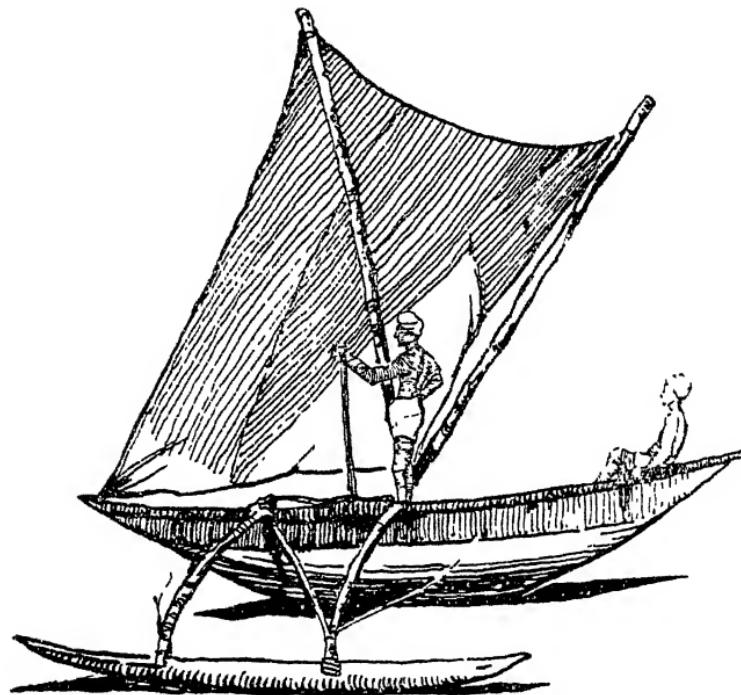


FIG. 20.—A catamaran.

us a very common type of boat called a catamaran. It is very long and narrow and is balanced by a big float fastened to it by two long poles. The fishermen who use these boats are very clever and very brave, for a catamaran is a difficult craft to manage. It is driven by sails.

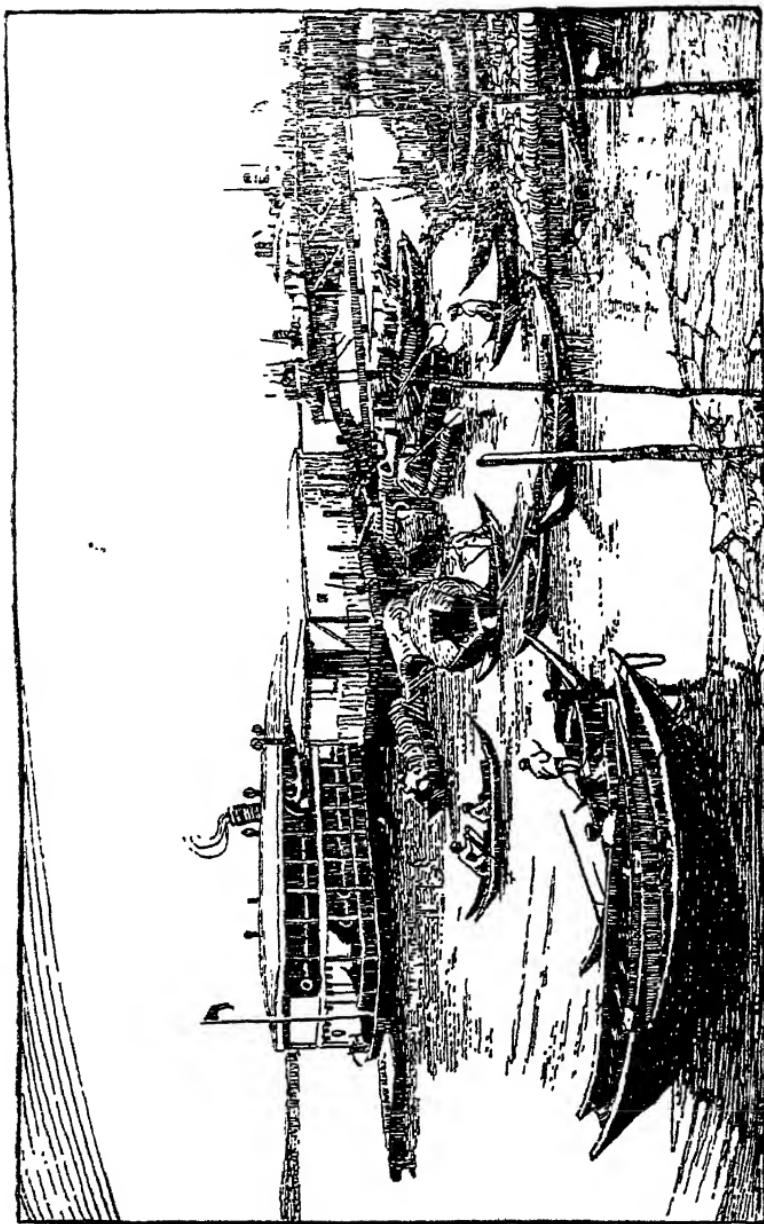


Fig. 21.—A river steamer.

4. **Sampans.**—There is a Chinese type of boat called a sampan which is used in certain of the seaports of India. Sampans are queer-shaped boats with high sterns and are sent along by a pair of oars. A man standing in the stern of the boat rows the oars, sending her along quite quickly.

Dugouts, catamarans, and sampans are old slow ways of travelling by water. So if we want to travel quickly we must use one of the new ways.

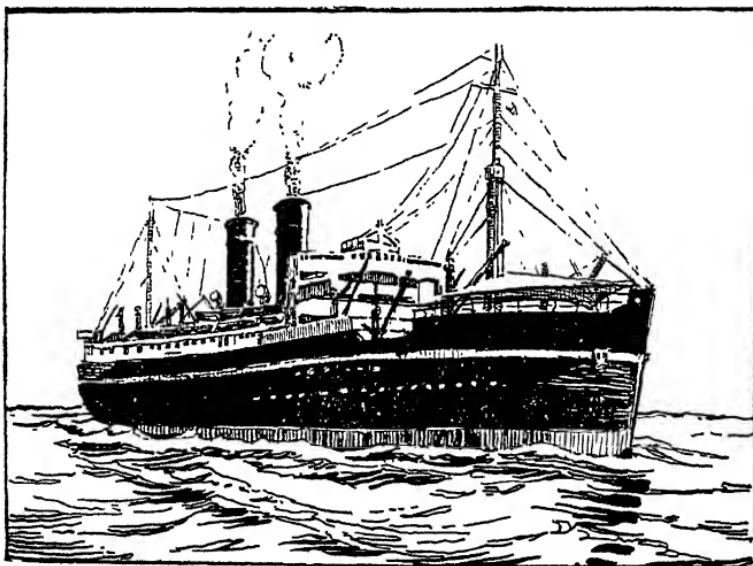


FIG. 22.—An ocean liner.

These are the new ways of travelling by water:

1. **River Steamboats.**—On the lower reaches of the Ganga, and especially in the delta, these steamboats run, often connecting one railway with another. Fig. 21 shows us a picture of one. The engines are driven by steam just like a railway engine, and they travel very much more quickly than the fishing boats.

2. Ocean Liners and Cargo-boats.—If we could visit Calcutta or Bombay or any of the other big ports of India we should find large steamers in their harbours. They are much bigger than the river steamers, for they have to travel across the sea, which is often very rough. They bring us goods from other countries and take away all the things India has to sell. People also travel to India on the ocean liners, and people in India go away in them to visit other countries. Fig. 22 shows us a picture of a liner.

3. Motor-boats.—Lastly, we have little boats which are driven by petrol just like a motor-car. They are used by people who want to get from one part of the harbour to another as quickly as possible.

So we see that there are three new ways of travelling by water—namely, by river steamers, by big ocean steamers, and by motor-boats.

EXERCISES

1. Make a model of a dugout in wood.
2. Draw a picture of a catamaran.
3. What are the chief old ways of travelling by land?
4. What are the chief new ways of travelling by land? If you have ever travelled by any of these ways tell the story of your journey.
5. By what ways can we travel from one place to another in a big town?
6. Is it quicker to travel by land or by water? What are the new ways of travelling by water?

CHAPTER XII

MOUNTAINS, HILLS, AND PLAINS

BEFORE we learn about the mountains, hills, and plains of India and Pakistan we must be quite sure we know what these words mean. Most of us will have seen a hill and will know that the word means high land. If we climb up a hill, we usually can see a long way over the country round about us. We also know that some hills are very much higher than others. That is, we can climb some hills in a few minutes, while it may take half an hour or longer to climb others.

Mountains are just big hills which are often very high and it may take hours and hours to climb to the top. We usually see them in long lines stretching across the country. These lines are called 'ranges'. Look at the picture (Fig. 23): you will see there the difference between a range of hills and a range of mountains. A *plain* is the

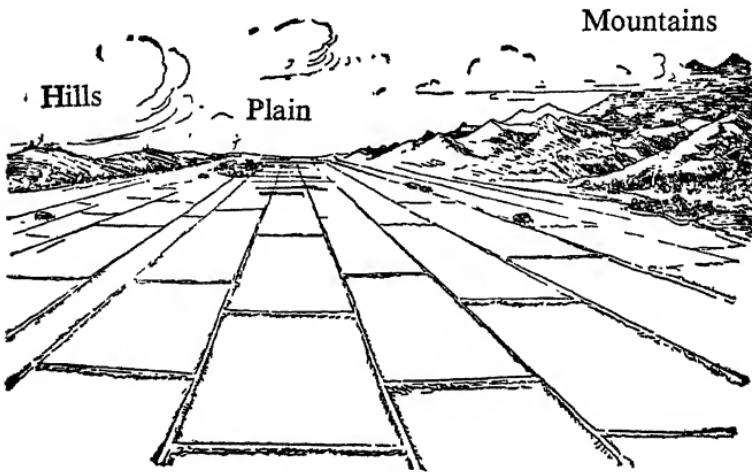


FIG. 23.—Diagram showing mountains, hills, and a plain.

flat land which lies at the bottom of the hills and mountains, very often on both sides of a river or along the seacoast (coastal plain).

There is another kind of flat land that we must learn about before we can understand the physical geography of India and Pakistan. ('Physical geography' or 'relief' of a country means where the mountains, hills, plains, rivers, etc., lie.) This other kind of flat land is called a 'plateau' or 'table-land', because it is flat like the top of a table and is raised up above the level of the sea just as the top of the table is raised up above the floor. Fig. 24 shows you a picture of a plateau. If we stand on a plain and see a plateau rising out of it, the steep edge of the plateau often looks like a range of mountains. This is the case of the Western Ghats in India when seen from the narrow western coastal plain.

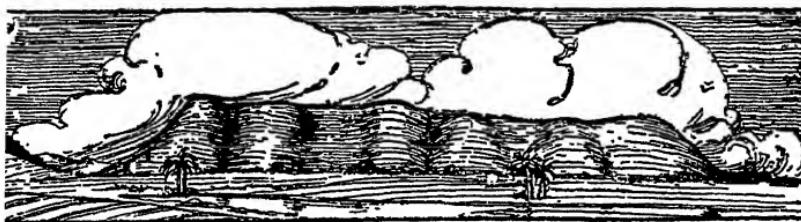


FIG. 24.—A plateau.

Let us imagine we are looking at a table, two of whose legs have been cut, as in Fig. 25. The top of the table will slope instead of being quite level. And if a man stood by the higher side of the table and poured some water on it, the water would run down the slope of the table-top towards the lower edge. Let us remember this fact when we are learning about the relief of India and Pakistan.

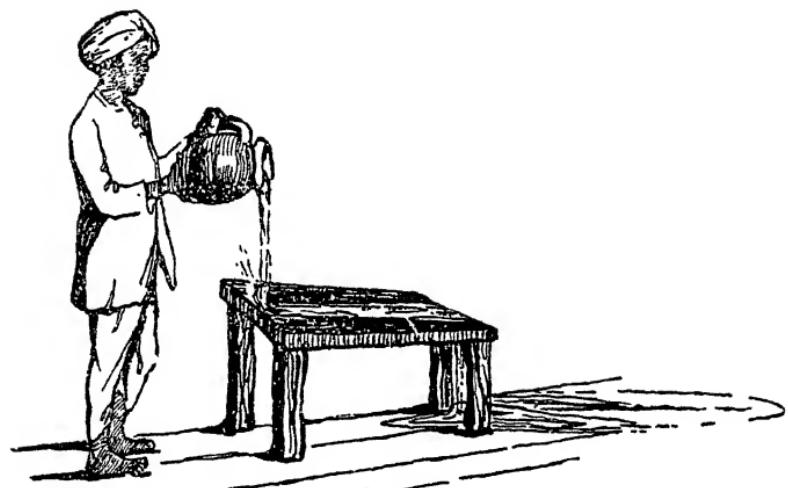


FIG. 25.—A man pouring water on a sloping table.

Now let us look at Fig. 26, which shows us the relief of the two countries. We notice at once that we can divide the two countries into three big physical divisions.

1. The Mountain Wall, including the Himalaya Mountains.
2. The Great Plain of Northern India.
3. The Plateau of Peninsular India.

Let us take each of these big divisions in turn.

1. **The Mountain Wall.**—Look again at Fig. 26. Notice that India and Pakistan are bounded on the north-west by the mountains of Afghanistan, through which there are two important passes or gateways (low gaps in the mountains through which it is possible to travel). These are known as the Bolan Pass and the Khyber Pass. Find them in Fig. 26. From the Khyber Pass to East Assam, India, and Pakistan are bounded by the great range of the Himalaya Mountains, which contain the highest peak in the world—Mt. Everest. These mountains are like a great wall shutting India and Pakistan off from the north, just as the wall round your house shuts the compound off from the street. From east Assam stretching

south-westwards towards the Bay of Bengal, like a long finger, lie the mountains which divide India and Pakistan from Burma. These are not so high as the Himalaya Mountains.

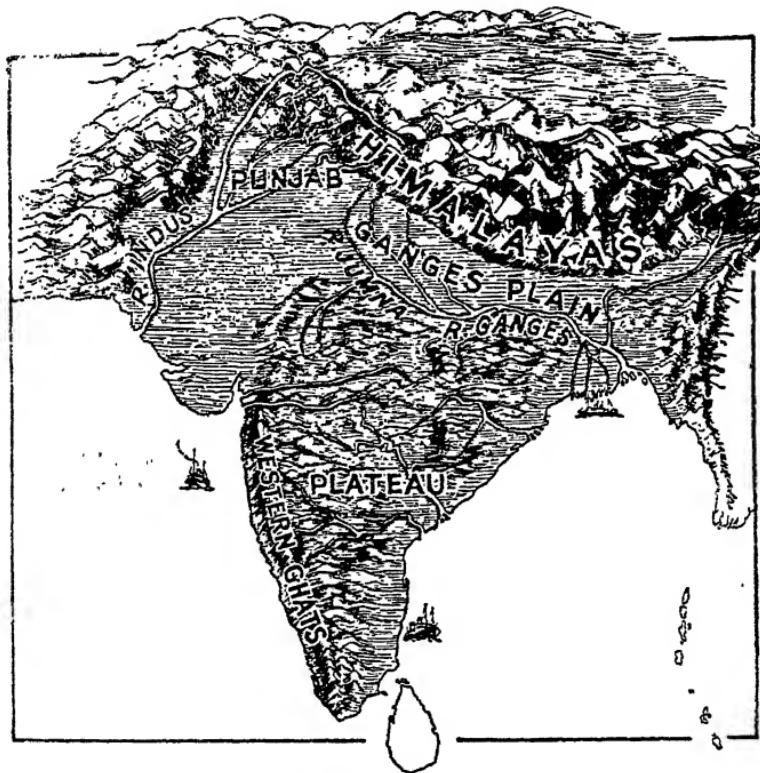


FIG. 26.—Map showing mountains, plains, and rivers.

2. The Great Plain of Northern India and Pakistan.

This great plain, which stretches right across from the Arabian Sea to the Bay of Bengal, is formed by two great rivers and their tributaries (or side-streams). Both these rivers rise in the Himalayas. The Indus flows south-westwards, through Pakistan, into the Arabian Sea, while the Ganga flows south-eastwards into the Bay of Bengal. Notice in Fig. 26 there is a stretch of country a little higher than the

plain which divides the two river valleys. The Plain of the Indus is very dry. We shall learn the reason for this later on. The Ganga Plain, however, is very rich, and there are more people living here than in any other part of India.

3. **The Plateau of Peninsular India.**—This great plateau, which is often called the Deccan, forms the largest part of the country. Look at Fig. 26 again and you will notice that the Deccan is higher in the west than it is in the east. Also you will notice that there are only two fairly big rivers flowing into the Arabian Sea from the Deccan, while there are three big and long rivers, the Krishna, the Godavari, and the Mahanadi, flowing into the Bay of Bengal. (Remember the water flowing down the tilted table-top.)

The Deccan Plateau has been tilted like the table towards the east, so that the western edge (the Western Ghats) is high, especially in the south, and forms a steep edge to the plateau, while the eastern edge (the Eastern Ghats) is much lower. The surface of the plateau itself has been cut deeply by the three big rivers and their tributaries, so that we find quite large river valleys where the land is low and fertile. In the south, in Mysore the plateau is much higher than it is in the north.

Notice also on Fig. 26 that there is a coastal plain between the Deccan Plateau and the sea both on the west and on the east. Notice also that this plain on the western coast is very narrow, while on the eastern coast it is much broader, especially in the south.

EXERCISES

1. Make a clay model of a range of hills and a coastal plain.
2. What is a plateau? How is it formed?
3. What is the relief of a country? Divide the relief of India and Pakistan into three big divisions.
4. Why do more people live in the Ganga Plain than among the Himalaya Mountains?
5. If you were travelling from Tibet to Mysore, what kind of country would you have to pass through?

CHAPTER XIII

RIVERS

LET us look again at Fig. 26. As we learned in the last chapter, there are two very big and important rivers which flow through the Great Plain of India—the Ganga or Ganges and the Indus.

Let us look first of all at the Ganga. This great river flows through the richest land in India and is looked upon by thousands of people as a sacred stream. It rises within the Himalayas and flows southwards as far as Allahabad, where it is joined by its big tributary, the Jamuna or Jumna. The Jumna, too, rises among the high mountains of the Himalayas, west of the source of the Ganga. From Allahabad, the Ganga flows eastwards and receives many smaller tributaries coming down from the mountain wall. Very few tributaries join the Ganga from the Deccan Plateau in the south. One we must remember is the Son, which joins the Ganga near Patna. There is, however, one more large tributary which joins the Ganga from the north. This is called the Brahmaputra, which rises near the Indus River on the plateau beyond the great mountain wall. It flows for hundreds of miles eastwards through this plateau. Then it takes a great bend through a deep gorge and flows westwards for some distance before it finally turns southwards to join the Ganga. Notice on Fig. 26 the flat land which lies on all sides of the great city of Calcutta. This land was formed during thousands and thousands of years by the mud or silt which the great rivers bring down in their water from the mountains. Notice there are many streams flowing through this land towards the sea. They are flowing *out* from the big River Ganga and are called 'distributaries'. (A tributary is a stream flowing *into* a big river and a distributary is

a stream flowing *out* from a big river.) The big flat stretch of land is called a *delta*.

Now let us look at the River Indus. We see that it rises on the plateau behind the great mountain wall, near the source of the Brahmaputra. Like the Brahmaputra, the Indus flows for many miles over the plateau before it bends southwards towards the plain. There are five important rivers which finally join the Indus, whose names you must remember. They are the Jhelum, the Chenab, the Ravi, the Bias, and the Sutlej. These are often called the 'Five Rivers of the Punjab' and are very useful to the people who live there because without them there would not be sufficient water to cultivate the land (to grow things). The land through which the Indus flows is so dry that not very many people can live there, except where the water from the river is used to make the land fertile.

The Indus, like the Ganga, has a delta where it joins the sea. Notice, too, that there is a big city, Karachi, west of the Indus delta, just as Calcutta lies to the west of the Ganga delta.

In the last chapter we learnt that in Peninsular India most of the important rivers flow eastwards towards the Bay of Bengal. The three biggest ones are (a) the Krishna, which rises in the Western Ghats and flows right across the plateau until it enters the Bay of Bengal by a delta, (b) the Godavari, which also rises in the Western Ghats, north of the source of the Krishna, and enters the sea just a little north of the Krishna, also by a delta, (c) the Mahanadi, which is not nearly so long as the Krishna and the Godavari but rises in the heart of the plateau and enters the sea also by a delta. The Cauvery in the south-east of Peninsular India is not so important as the other three, but we must just remember its name.

In the north of Peninsular India the Western Ghats become very much lower than they are in the south. About 200 miles north of Bombay we find the mouths of two fairly large rivers, the Tapti and the Narbada. The Narbada rises near the northern edge of the Deccan Plateau, not very far from the source of the Son, and its valley forms an important route across the plateau.

EXERCISES

1. Draw a sketch-map of India and Pakistan showing the Ganga and Indus rivers and their chief tributaries and also the chief rivers of Peninsular India.
2. What are the names of the cities near the mouths of the Ganga and Indus?
3. What is a tributary? What is a distributary? Draw little sketch-maps to show what both these words mean.
4. What region is called the 'Land of the Five Rivers'? Why are these rivers useful to the people who live there?

CHAPTER XIV

THE SEA

MANY of us in India and Pakistan have never seen the sea at all, so before we ask ourselves the question, 'Where does the sea touch the two countries?' let us try to picture to ourselves what the sea looks like. Those of us who live on the banks of a big river must try to imagine ourselves standing on the bank looking across the water. We must try to imagine that we cannot see the land on the other side of the river, but that the water stretches away so far that it seems to meet the sky in a long straight line. If we bend down and taste the water, it will be salt and we cannot drink it. If there is a strong wind blowing we shall see big waves like those made by the big steamers which go up and down the

river, only very, very much larger. The part of the land near the sea is called the coast. Instead of the high bank of mud which we see beside the river, there is usually a flat strip of sand or stones which is known as the beach. Sometimes there are steep rocks standing out of the water all along the coast. The rocks are called cliffs, and are often washed by the waves when the sea is rough. Fig. 27 shows a picture of the waves breaking over the cliffs.

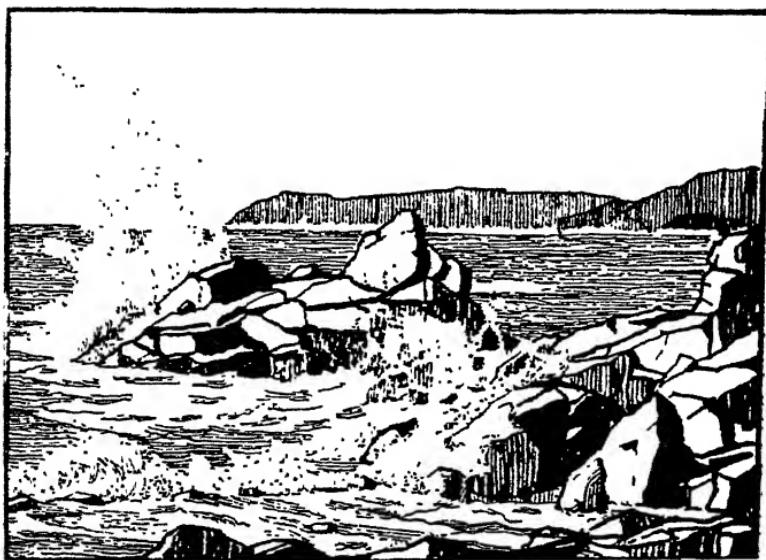


FIG. 27.—A rough sea and cliffs.

Now let us turn back to Fig. 2. We see that the map of India is coloured black, while the sea is left white. We notice that excepting in the north-west, north, and north-east, India is bounded by the sea. Let us imagine we are travelling by sea from the frontier of Baluchistan (part of Pakistan) to the frontier of Burma, and that our ship is

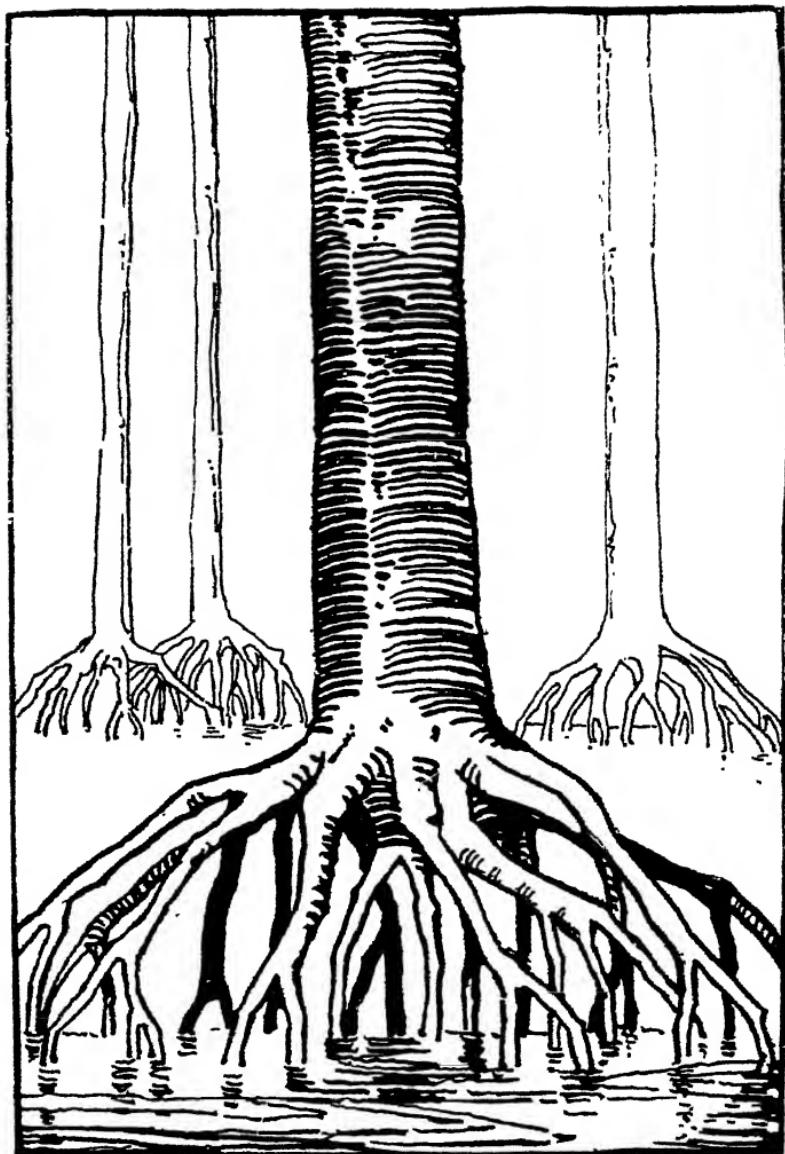


FIG. 28.—Mangrove trees at low tide.

keeping close to the land all the way so that we are able to see the coast. We call the sea on the western side of India the Arabian Sea. The first interesting thing we should notice would be the big city and port of Karachi. Karachi is built, you will remember, a little to the west of the great delta of the Indus. Leaving Karachi we should pass many miles of flat land where nothing very much grows. By the time we reach Cutch the land becomes a desert. Next we pass the great Kathiawar Peninsula and sail across the Gulf of Cambay to the mouths of the Narbada and the Tapti rivers. Then begins our long journey southwards along the west coast. Nearly all the way we can see the Western Ghats as a great range of mountains getting higher and higher as we go southwards. All this coast suffers from very rough seas, especially when the South-West monsoon is blowing. We shall learn more about the monsoon later on.

There are not many good harbours (safe resting-places for ships) along this coast, and we soon reach the biggest and best of these, Bombay, which is built on a small island and is sheltered from the sea. Bombay is one of the chief ports of India and is a very big and important city. On leaving Bombay, we notice that the coast becomes very rocky and dangerous to ships and the Ghats are quite close to the coast. From the high cliffs at night we should see the lights from the lighthouses flashing to guide the ships. This rocky coast continues until we reach the port of Goa, after which the land becomes flatter and we see lines of sand-hills called 'dunes', often covered with coconut palms, behind which are lakes or 'lagoons', and behind that again are paddy lands. Cochin is situated in one of the lagoons. It is deep and so it has been made into a good harbour. Cochin harbour has a large number of ships taking away the goods of the west coast lands. This kind of country

continues until we reach Cape Comorin, which is the most southerly point of India. We then pass into the Gulf of Mannar between Ceylon and the mainland. As we go northwards we come to a place called Adam's Bridge. This is really a chain of islands and rocks which are only just covered by the sea. This chain nearly joins Ceylon to the mainland, but there is a gap in the middle through which our ship can pass. There are two railways, one on the mainland and one in Ceylon, which have been built out on to the islands nearest the centre channel; so that people travelling from India to Ceylon have only about twenty-two miles to travel by sea before they join the railway on the Ceylonese side.

We now pass into the Palk Strait, which is very shallow. The coast-lands north of this strait are flat, forming a much wider coastal plain than on the west. Again we see the sand-dunes fringed with coconut palms, behind which lie the salt lagoons. Halfway between Palk Strait and the deltas of the Krishna and the Godavari lies Madras. This is the chief port along this eastern coast, but it has no good natural harbour, so men built a large 'breakwater' (a long solid stone wall) to protect the ships from the rough sea. When we pass the mouths of the Krishna and the Godavari we see stretches of mangrove swamps. The mangrove tree likes to grow on low ground which is flooded by the sea. Fig. 28 shows you a picture of a mangrove swamp.

At a place called Dolphin's Head the sea is deep. On the land, the town is Visakhapatnam. A large harbour has been built there. Ships are also built there. A large trade is carried on through Visakhapatnam harbour.

North of the mangrove swamp district we again see high rocky cliffs. North of these cliffs we pass the delta of the Mahanadi, after which our boat steers eastwards and the islands of the delta of the Ganga come in sight.

We see the muddy water brought down by the delta streams. Our boat again turns southwards towards Burma past the big port of Chittagong in East Pakistan. Since we left Palk Strait we have been travelling through the Bay of Bengal.

EXERCISES

1. Draw a picture of what you think the sea looks like. Draw a boat on the sea and some rocky cliffs and a beach.
2. Draw a map of India and Pakistan and shade in the land with your pencil. Write the names 'Arabian Sea', 'Bay of Bengal', 'Gulf of Mannar', and 'Palk Strait' in their right places.
3. What big rivers of India flow into the Bay of Bengal?
4. Make a model of what you think a lighthouse looks like.
5. What are Karachi, Bombay, Madras and Calcutta? Can you give any reason for their position?
6. How is the east coast of India different from the west? Tell the name of a place where ships are built.

CHAPTER XV

SOMETHING ABOUT HEAT

EVERYBODY who lives in India and Pakistan knows the meaning of the word 'heat'. How often have we heard people say, 'Isn't it hot to-day?' or, 'I am so hot'. Where does that heat come from? We shall soon find out if we sit in the sun for a few minutes, and shall be very glad to get back into the shade once more.

You may have noticed that some days are hotter than others, or that some parts of the year are hotter than others. You may have visited another village or town which was much hotter or cooler than the place in which you live. All these things show us that the amount of



Fig. 29.—The eternal snows on the Himalaya Mountains.

heat (which is called 'temperature') is not always the same all over India at all times of the year.

All the heat we feel comes from the sun, which warms the air. You may have noticed that at certain times during the year the sun rises to a point much higher in the sky than at others. During part of the year the sun would be nearly or quite over your head if you looked up at him at 12 o'clock noon. You will notice that it is very hot when this happens. At other times of the year he does not rise so high in the sky. The air at this time will not seem so hot. This shows that at certain times of the year it is much hotter than at other times, or, as we say, the temperature is much higher at certain times of the year than at others. If we think only of the temperature, we can divide the year in the greater part of India into three parts. (The southern parts of Peninsular India are always hot.) Firstly, there is the *hot season*, which begins in March in the south and lasts until July in the north-west. During these months the sun is nearly over our heads, and it is very hot, even at night when the sun has set. Secondly, we have a *warm-season*, beginning in June in the south and in July in the north-west. This lasts until the end of October, and although the sun is nearly over our heads during these months, we must remember that there are nearly always very heavy clouds in the sky which stop the sun's rays from reaching the earth. Therefore it is cooler than the hot season, when the sky is clear. October is the hottest month of the warm season, because then some of the heavy clouds have disappeared and the sun can shine brightly and make the air hot. Thirdly, we have a *cold season* from November to the end of February, and if we looked up at the sun at noon during these months, we should see that he was not right over our heads. There are reasons for all these things, and one day

you will learn about them.

We have noticed, too, that some places are hotter than others. Let us think of some places in India that are nearly always cool. You have heard of people going for the summer to a 'hill-station'. They go there to get cool because places on tops of hills or mountains are cooler than those in the plains. You must remember that the higher up the mountain you climb the cooler it gets, until you would reach a height where you would need thick clothes because you would feel very cold. The tops of the Himalayas are covered with snow and ice and are very, very cold. We can see these gleaming white mountains (*see* Fig. 29) from the hill-stations of Simla and Darjeeling, where people often light fires in their houses, not only for cooking, but to warm themselves too.

Other places, however, that are not on the tops of mountains are cold at some times of the year. These places are usually very hot indeed during the hot season and cold during the cold season. In other words the temperature is said to vary very much. Such places are usually found a long way from the sea. If you live in Delhi or Lahore, or somewhere near these cities, you will know how very hot it is in the hot season, and how cold it is in the cold season. If a place is near the sea there will be always a nice cool wind blowing, and even in the hot season, the heat will not be too great, while in the cold season it will be quite warm. In other words, the temperature of places near the sea does not vary very much.

Now let us collect together the facts we have learnt in this chapter:

1. The year in the greater part of India and Pakistan can be divided into three parts according to its temperature:

- (a) Hot season vary in time according
- (b) Warm season to position.
- (c) Cold season.—November to February.

2. Places on mountains are always cooler than places on the plains.
3. The temperature of places far from the sea varies very much.
4. The temperature of places near the sea does not vary very much.
5. The south of Peninsular India is hot during the greater part of the year.

EXERCISES

1. Draw a picture of a man who is feeling hot.
2. Where does the heat come from?
3. What places in India are nearly always cool? How would you keep yourself warm in these places?
4. Whereabouts in India does the temperature vary very much at different times of the year? Why?
5. How many seasons are there in India? What are they and during what months do they occur?

CHAPTER XVI

SOMETHING ABOUT WIND

WE learn from geography that the Earth is a big ball shaped rather like an orange. The outside on which we live is made up of land and sea, rivers and lakes. All round this ball, covering it like a coat, is the air. We cannot see the air, but we can feel it. It is very useful to us too; in fact, without it we could not live. Every moment of our lives we are breathing or taking the air into our bodies.

The air is useful to us in other ways, for it is the air which makes us warm and makes all the plants and animals grow, for they, like us, have to breathe in air.

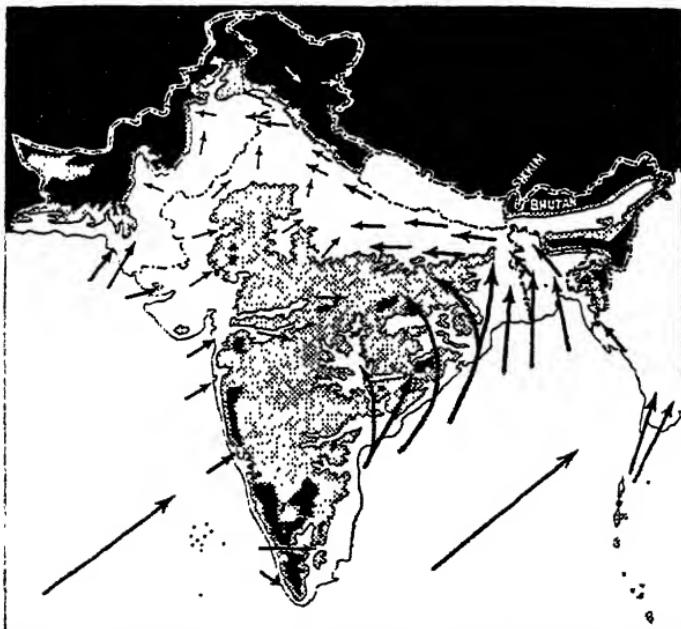
We said just now that we can feel the air. Have you ever watched a tree when every leaf and twig is quite still? Have you noticed how suddenly, although no one is touching it, the whole of the tree begins to sway backwards and forwards? It is the air which is moving from one place to another which makes the tree move. We have a word for moving air, and that word is 'wind'. Now try to remember feeling the wind blowing against your face while you were watching the tree swaying.

Sometimes the wind is very gentle and just sways the leaves of the tree. If you have sailed in a boat on a day when the wind is blowing gently, you will remember that your boat went along very slowly. At other times the wind is very strong and blows the trees so that their trunks bend, and the sailing-boats travel quickly.

You may have noticed that the wind does not always blow from one place (or direction). One day it may blow from the south-west, while on another day it may blow from the north-east. We always call a wind by the name of the direction *from* which it blows. We talk about a south wind, or a south-west wind, or a north-east wind, etc.: that means that the south wind is blowing *from* the south, the north-east wind *from* the north-east, and the south-west wind *from* the south-west.

We found out in the last chapter that some parts of the year are hotter than others in India and Pakistan. We found out that the hottest part of the year is during the months of March, April, and May for the greater part of India and Pakistan. You must learn that in India and Pakistan (but not in all countries) air always blows towards hot places and away from cold places. During the hot season

India and Pakistan are much hotter than the sea, so, according to our rule, the air (wind) will blow from the cool place towards the hot, or, in other words, from the sea towards the land. It takes several months to make the wind do this, so that the south-west wind, *i.e.* the wind from the sea—look at your map (Fig. 2), and you will see that the Arabian Sea lies south-west of India, and the Bay of Bengal



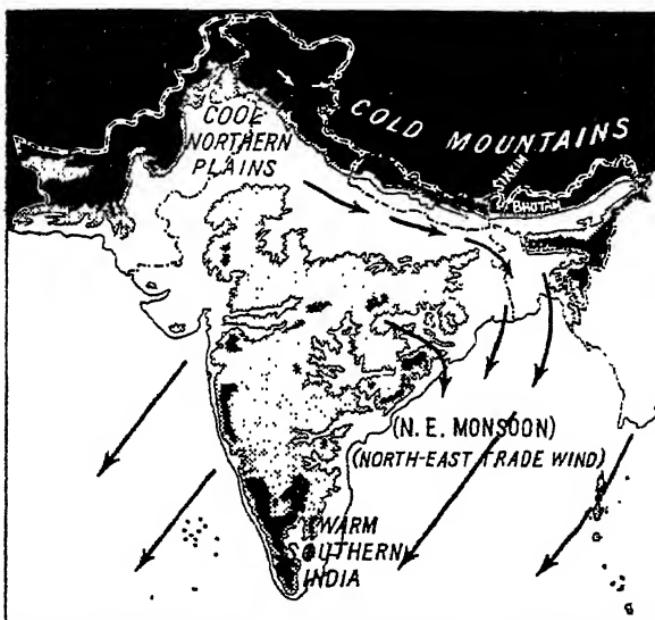
SIKKIM AND BHUTAN STATES ARE ATTACHED TO INDIA BY SPECIAL TREATIES

FIG. 30.—India and Pakistan during the S. W. Monsoon.
(The arrows show the direction of the wind.)

south-west of Bengal and Burma—begins to blow in June and goes on blowing until late October. This wind is called the South-west Monsoon wind, and it blows during the months of June, July, August, September, and half October, *i.e.* during the warm season. Look at Fig. 30. The map shows India and Pakistan during the South-

west Monsoon. Notice how the wind on reaching the Ganga valley changes its direction and blows straight up the valley. We shall learn in the next chapter that it is these winds which bring the rainy season to India and Pakistan. We shall see, too, that the Punjab gets less rain than Bengal and that rain falls later than it does in other places.

What happens during the rest of the year? You



SIKKIM AND BHUTAN STATES ARE ATTACHED TO INDIA BY SPECIAL TREATIES

FIG. 31.—India and Pakistan during the N. E. Monsoon.
(The arrows show the direction of the wind.)

remember that in the last chapter we said that the cold season follows the warm season. During the cold season the land becomes much colder—in fact, cooler than the sea. So, following our rule that the wind blows from cool places to warm places, we find that the wind is blowing from the land to the sea, *i.e.* from the north-east to the

south-west. This wind is called the North-east Monsoon, and continues to blow until the hot season begins. During the hot season, there is very little wind at all. If it does blow, it is usually the North-east Monsoon which has not yet become the South-west Monsoon. Fig. 31 shows us India and Pakistan during the North-east Monsoon.

We must remember the following things about the winds of India and Pakistan :

1. That during the warm season, *i.e.* June, July, August, September, and half October, the South-west Monsoon wind is blowing.
2. That during the cold season the North-east Monsoon wind is blowing.
3. That during the hot season in March, April and May there is little wind blowing, but when the wind does blow it will still be the North-east Monsoon wind, which has not changed into the South-west Monsoon.

EXERCISES

1. Draw a picture of some trees being swayed by the wind.
2. What use is the air to us?
3. How does the wind help us travel by boat? Draw a picture of a boat which is being driven along by the wind.
4. From which direction will the wind be blowing (*a*) during the warm season, (*b*) during the cold season?
5. What happens to the wind from the sea when it reaches the Ganga valley?

CHAPTER XVII

SOMETHING ABOUT RAIN

In this chapter we are going to talk about rain. We all know that rain falls down from the sky, but we may not know how the water got up into the sky, so as to fall down again as rain. Let us see just how this happens.

You have all seen puddles of water lying in the road after a shower of rain. If you watched one of those puddles for a long time you would see that the water gradually disappears. No one has touched it and yet it has gone. It has disappeared into the air so that we can no longer see it. The air is like a thirsty boy, who drinks up all the water he can find. Just like a thirsty boy, too, the hotter it is the more it wants to drink. This disappearance of the water into the air is called 'evaporation'. When water evaporates, it becomes very light in weight and floats to the top of the air, just as a log of wood floats on the top of the water.

Do you remember when we were talking about temperature we said that places high up in the mountains are always cool? Just as places get cooler the higher we climb, so does the air get cooler the higher up we go. We said just now that the hotter the air, the more water it drinks or evaporates. We can also say the cooler the air the less water it can drink. Now, if the hot air near the ground drinks in a lot of water and then rises to where the air is cooler, that cooler air will not want so much water, so that some of it will have to be changed back again into water. This changing of the invisible water in the air back to the drops of water so that we can see them is called *condensation*.

When condensation takes place little tiny drops of water are formed, and when there are many of them together they form the clouds which we can see floating in the sky. Sometimes there is a great deal of condensation taking place and heavy black clouds are formed, and the tiny drops of water join together into bigger drops and fall down on the earth as rain.

You remember we talked about the hot season in India, and we said that during that season the air becomes very

hot and thirsty indeed. We said, too, that the wind towards the end of the hot season is coming from a very big 'puddle'—the Arabian Sea and the Bay of Bengal—towards the land. So the hot air drinks up—or evaporates—all the moisture it can hold, and when it reaches the Western Ghats or the Himalayas, it has to rise in order to get over them. As it rises, of course, it becomes colder, and therefore condensation takes place and heavy black clouds are formed and much rain falls. This part of the year—June, July, August, and September—is sometimes called the 'rains'; or the South-west Monsoon season.



FIG. 32.—The man with an umbrella.

During the rest of the year the North-east Monsoon is blowing. It is blowing from the north-east, and if you look at a map of Asia you will see that as the north-east wind blows from the land north of India towards the sea

it has passed over nothing but land and is therefore dry (rainless).

Let us now see what parts of India and Pakistan get the heaviest rainfall. If you look at Fig. 30 you will see the mountains marked there. The wind is blowing from the South-west during the South-west Monsoon season, and when it reaches the Western Ghats it has to rise in order to cross them. As it rises it becomes cooled, and therefore condensation takes place, and all the places on the west or sea side of the Ghats have a very heavy rainfall. Look back at Fig. 30 again and you will notice that north of Bengal is the Great Mountain Wall—the Himalayas. The South-west Monsoon also crosses the Bay of Bengal, bringing heavy rain to Bengal just as it does to the western side of the Western Ghats.

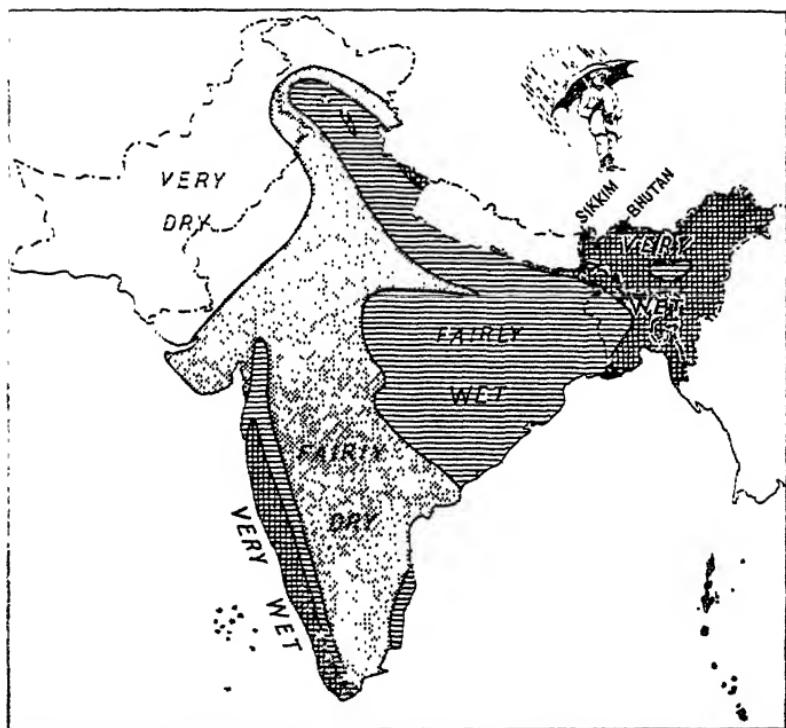
You have seen a man sheltering himself with an umbrella, and you have noticed how, if the rain is coming down in a slanting direction (driving rain, as it is called), he holds his umbrella over one side so as to catch as much rain as possible. The other side of him is protected without



FIG. 33.—Diagram showing the rain shadow in Peninsular India.

being covered up and the umbrella catches most of the rain. Look at the picture of the man doing this. The Western Ghats and the Himalayas are the umbrellas of India. They catch nearly all the rain, so that if we cross over them on to the Deccan Plateau, or on to the Plateau

of Tibet, we find much less rain falling there. We say that these sheltered regions are in the 'rain shadow' of the mountains. Fig. 33 is a diagram showing the rain shadow in Peninsular India.



SIKKIM AND BHUTAN STATES ARE ATTACHED TO INDIA BY SPECIAL TREATIES

FIG. 34.—India and Pakistan during the S. W. Monsoon.

Notice in Fig. 34, which shows the rainfall of India and Pakistan, that the Indus valley does not have very much rain. Notice, too, that the coastlands from Kathiawar to the north-west frontier are flat, and therefore the winds do not have to rise when they reach the land, and so very little rain falls. Look again at Fig. 34 and you will see that the

North-east part of the Deccan has a moderately heavy rainfall, because it is fairly high. We saw in the last chapter that when the South-west Monsoon winds reach the mouth of the Ganga they turn westwards and follow the river valley. The Himalayas cause very heavy rainfall in Bengal; but as the wind goes farther westward up the Ganga valley it has less and less water to give up as rain, and so the rainfall becomes less and less the farther we go towards the north-west frontier. Notice in Fig. 34 what a big difference there is between the rainfall in the Punjab and the rainfall in Bengal. You must remember, too, that just as the Punjab gets its hot weather later than other parts of India, so also do the rains break later in this region.

Do not let us forget the following things:

1. That the South-west Monsoon wind brings rain.
2. That the North-east Monsoon wind brings dry weather except in the east coast of South India.
3. That the mountainous parts are very wet, except in the north-west.
4. That the heaviest rain falls on the western coast and on the Western Ghats, in Bengal and Assam.
5. That the rainfall becomes less and less the farther up the Ganga valley we go.
6. That the Indus valley is very dry.

EXERCISES

1. Draw a picture of a village during a rain-storm.
2. What happens to the rain which falls down on the ground?
3. What is 'condensation'? What is 'evaporation'?
4. Draw pictures of all the different kinds of clouds you have seen.
5. At what time of year does most rain fall in India? What do we call that season?
6. What parts of India get most rain? Draw a map of India and Pakistan showing the rainy parts.
7. Why is the Punjab drier than Bengal?

CHAPTER XVIII

SEASONS

In this chapter we are going to collect together all the important things that we have learnt in the last three chapters, so that we can have in our minds a picture of the seasons of the year. We can divide the year in India and Pakistan into three seasons:

1. **The Warm Wet Season or the Rains.**—Then the temperature is fairly high, though a great deal of the heat is kept away from the earth by the thick rain clouds. Nearly all the rain which falls during the year in most parts of India comes in this season, and the wind which brings the rain is the South-west Monsoon wind. This season lasts roughly from the beginning of June to the middle of October, when the rain gradually ceases.

2. **The Cool Season or 'Cold Weather'.**—This season is the most pleasant one in most parts of India. The temperature varies greatly from north to south. It is cold in the Punjab but quite warm in Southern India. The sunshine is bright and cheerful without being too hot. All the time there is a cool north-east wind blowing, and there is very little rain. This season lasts from the middle of October to the end of February.

3. **The Hot Season.**—During this part of the year the temperature is very high and there is very little wind to cool the land. The places that are on the plains and a long way from the sea are the hottest, *e.g.* the Indus valley. Some people go away to the mountains or even to other countries to get away from the great heat. There is very little rain during these months, but towards the end of May showers of rain sometimes fall, especially in Bengal and Assam. This season lasts from March to the beginning of June.

All the things we have learnt about the temperature, winds, and rainfall of India are connected with 'Climate'. When we talk about the climate of India and Pakistan, we mean how hot it is and how cold it is, what winds blow, and how much rain falls during a year or longer than a year. We sometimes see the word 'weather' used to describe temperature, winds, and rainfall. This word is only used for short periods of time, such as a day or week or sometimes a month. We can say, 'The weather to-day is very fine', or, 'During the last month we have had bad weather'.

EXERCISES

1. Draw three pictures of your village street or a street in your town. One picture is to show the rains, the second to show the cold season, and the third to show the hot season.
2. What do you mean by the word 'climate'?
3. What do you mean by the word 'weather'?
4. Into how many seasons can we divide the year in India and Pakistan?

Write briefly about the climate in each season.

CHAPTER XIX

USEFUL ANIMALS AND WHERE THEY ARE FOUND

1. **Bullocks.**—Our old friend the bullock is the best known and one of the most useful animals in India. He is a patient beast and can work very hard. He earns his living by pulling a cart or a plough and sometimes he helps us to make flour by working the grindstones. ~~So good is he and so useful to man that the Hindus say that he is a sacred animal, and they will not eat beef, which is~~

the name we give to the flesh of the bullock. In other countries the bullocks are killed for meat and the cows are allowed to live a long time, because they give us milk and calves. We do not drink very much milk in our country. The bullock in our country has a hump upon his neck. In some countries, such as Australia and South America, where the bullocks are bred for meat, they do not have humps on their necks. The humped bullocks live mainly in Asia, especially in India and Burma. We find bullocks all over India and Pakistan except in the mountains, where bullock-carts cannot be used. Bullocks like nice rich grass to feed on, and when people cannot get it easily, they have to buy it from other parts of the country or grow special food.



FIG. 35.—Water buffalo.

2. Buffaloes.—Most of us who live in the country will know an animal which is very much like a bullock only much bigger and uglier (see Fig. 35). He is called a

water buffalo, because he is fond of swimming in water or wading in the mud. He has two flat horns, which float on the water and keep his nose up so that he can breathe easily. He does the same work as the bullocks do, but he is slower and much less patient than they are. When he is wild he likes to live in the forests, especially where it is swampy, so that he can bathe as many times a day as he likes.

3. Elephants.—Perhaps some of us who live in the forests may have seen elephants hauling logs of wood down to a stream. These elephants are tame; they have been caught in the forests of India where they live in wild herds. After they have been caught, they are taught to carry logs balanced on their tusks. Look at Fig. 36 and you will see elephants piling up the logs. They are very clever, and know exactly what their drivers say to them. It takes a long time to train them to work well; and they live for 150 to 200 years. They are very expensive to buy. That shows us how difficult it is to catch elephants alive and to train them well. Elephants like to live in thick forests, and sometimes people go out shooting them for their beautiful tusks, which are carved into boxes or into statues of men and women. Elephants were at one time used when men went out into the forests and jungles to hunt tigers and also on special occasions such as the weddings of very rich people.

4. Mules and Donkeys.—Mules are animals which look very like horses. They are used in hilly places where the roads are bad, because they are surefooted. They carry goods strapped to their backs. Donkeys are used in the dry parts of India and Pakistan, because they can travel long distances over dry sandy country.

5. Camels.—Camels have been called the ships of the desert, because they can travel for a long time over the dry desert without any water. Their feet are made in such



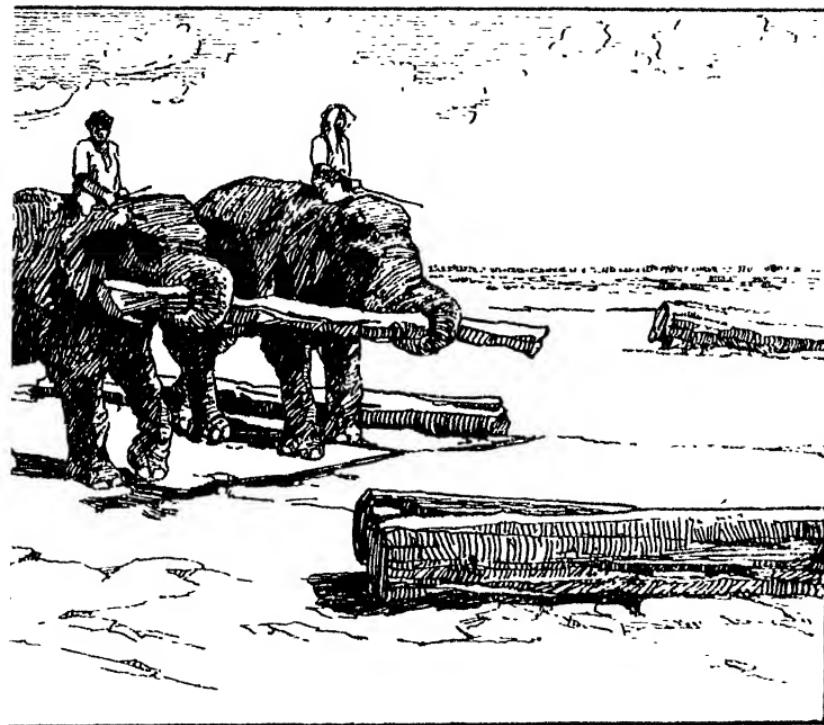


FIG. 36.—Elephants carrying logs of wood.

a way that they do not sink into the sand. We find them in the very dry parts of India and Pakistan, but not in the wet parts.

6. Horses and Ponies.—Then there are the horses and ponies, which are used for drawing gharries and ekkas, and for racing. There are a very few of them in India and Pakistan as compared with the large numbers of bullocks and buffaloes, because the ponies and horses are not used here for ploughing as they are in many other countries.

7. Sheep.—We find these animals in the drier hilly parts of India, especially in Madras. They are very common animals in some countries, especially cold countries. They are covered with thick wool, which is used for making blankets and other woollen stuffs; and their flesh, called mutton, is good to eat. Sheep are very useful animals to us, because they give us food and clothing; but the Indian sheep are not so good as those of colder countries.

8. Goats.—Then there are the little goats which the boys and girls often look after. These animals give us milk to drink, and their meat is delicious and very cheap to buy. A goat can live on very poor grass and small shrubs, and costs very little to keep, so we find him all over the country.

9. Fish.—Lastly, there is one type of creature which is sometimes called an animal. We find them swimming in the rivers and seas, and we call them fishes. They are useful to us, because they make us delicious fish curries and form quite an important part of our food. In many parts of the country the people keep them in ponds.

EXERCISES

1. Why do we find (a) mules in the hilly country, (b) camels in the deserts?
2. Which animals do you think is most useful to man? Why?
3. Draw a picture of a goat. Why are goats useful to us?

4. What do we call the flesh of (a) bullocks, (b) sheep?
5. How are fish caught? Make a clay model of a fish.
6. How is it true to say that the elephant is valuable whether it is alive or dead?

CHAPTER XX

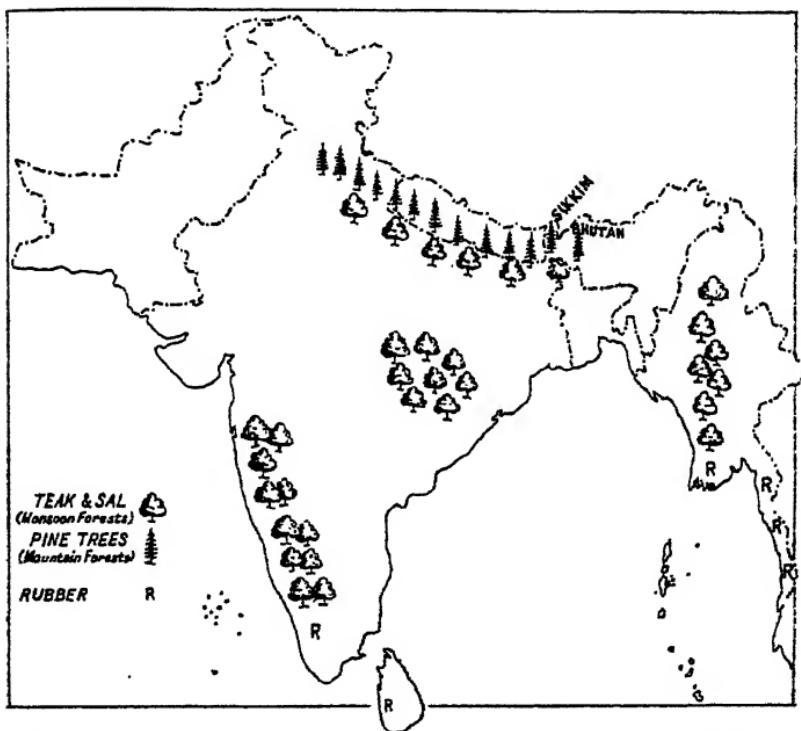
USEFUL TREES AND WHERE THEY GROW

1. **The Teak Trees.**—India is famous all over the world for its beautiful teak wood. Teak is a hard wood. It can stand a lot of hard wear, and many big ships which go across the sea have their woodwork made of teak, because nails driven into the teak wood do not rust easily. It also makes good furniture. Teak is used in building houses in some parts of India and Pakistan, because it is not easily split by the rain. In other countries people use teak for making garden chairs and tables, but the wood is very heavy and so costs a great deal of money to carry it to those countries. The teak tree loses its leaves every year during the hot season. It likes to live in a part of the country where there is a good deal of rain, but not too much. We find it growing in certain parts of the Western Deccan. Find these places on the map, Fig. 37. Notice that most of the valuable teak forests are in Burma and not in India.

2. **Sal.**—This wood is very largely used in India and Pakistan for building and many other purposes. It, too, grows in the wet forest regions but is not found in the same forest as the teak trees. It grows on the lower slopes of the Himalayas and in the north-east of the plateau.

3. **Jungle Woods.**—There are many different kinds of jungle woods growing all over the country, but many are so poor that they are only used by the people for fire-wood.

4. **Bamboo.**—Bamboo is really not a tree at all, it is a giant grass. We use bamboo sometimes in building our houses and for making all kinds of useful things. There are many kinds of bamboo, but the best of them grow with the teak trees. This type of forest, where the teak trees



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FIG. 37.—Useful trees, and where they grow. and bamboo grow, is called 'monsoon forest', and it is in this kind of forest that most of India's valuable timber grows. But we find bamboos of other kinds growing in many other parts of the country.)

5. **Palm Trees.**—There are at least three important kinds of palm trees in India.

(a) Coconuts are planted round the villages, but grow best in hot, wet places near the sea. They are grown for their nuts, which give us coconut oil and coconut for our curries, besides the fibre for mats in our houses (see Fig. 40).

(b) Palmyra palms are like the coconuts. They are planted round the villages to give us leaves for thatching cottages, fibre for making ropes and nuts to be eaten. Toddy can be got from palm trees. They, too, are found in many parts of India, but grow best in fairly dry places.

(c) Betel-nut palms, too, are found in many places. From these palms we get the betel-nut which some people like to chew.

6. Pine Trees.—On the slopes of the Himalayas are very large forests of pine trees. These trees give us good soft wood, which is excellent for building. Unfortunately, the pine forests are difficult to reach, which makes it very expensive to take the wood to places where it could be used for building or other purposes. So at present these forests are very little used.

7. Rubber Trees.—Rubber trees grow only in the very hot and wet parts of India but they are not found wild. They have to be planted. There are plantations of rubber trees in Travancore, but there are much larger plantations in Ceylon, Malaya and southern Burma. Rubber is the juice of the rubber tree, which is collected by making slits in the bark of the tree and catching it in a little cup hung at the bottom of the slit.

THINGS WE MUST REMEMBER ABOUT THE USEFUL TREES

1. Most of the useful timber trees grow in the monsoon forest. These monsoon forests do not grow in the wettest parts or in the driest parts but between the two.

2. Some of the trees which give us useful foods have been planted by men all over the country, and did not grow there naturally. Such trees are coconuts and betel-nut palms.
3. Some of the trees, such as rubber and sometimes teak, are grown in plantations—that is, somebody cleared a piece of jungle land and then planted rubber or teak trees in straight lines a certain distance apart. They did this because they can produce better rubber or timber more easily in this way.

EXERCISES

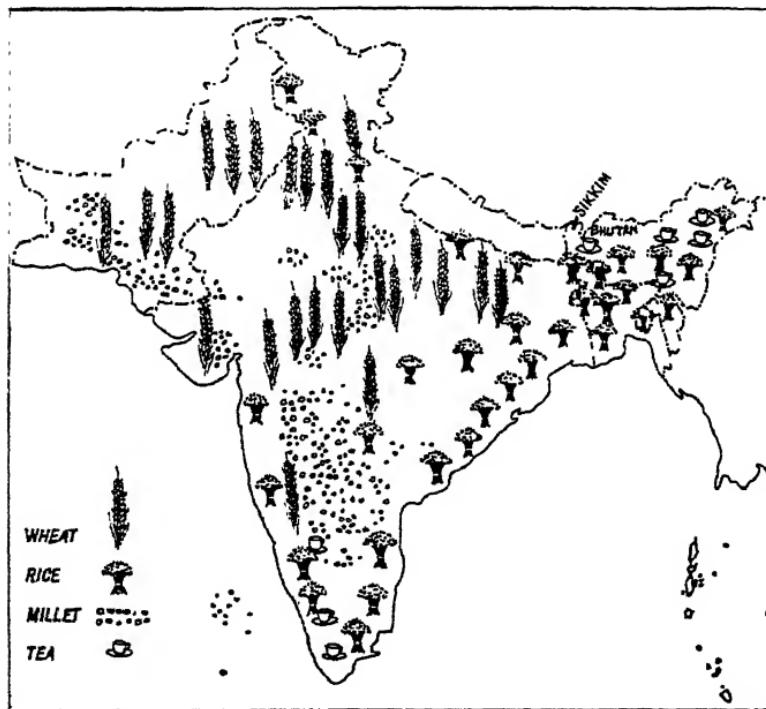
1. Name all the trees you can grow in your district. Collect leaves of all these trees and see how many different ones you can get.
2. What do you think is the most useful tree in India?
3. Draw a picture of a forest.
4. Make a list of things you use which are made of bamboo.
5. Where do rubber trees grow? What is rubber, and for what is it used?
6. Draw a map of India and Pakistan showing where the monsoon and the pine forests grow.

CHAPTER XXI

USEFUL PLANTS AND WHERE THEY GROW

1. **Rice.**—India and Pakistan, for the most part, are fertile countries, and the majority of people work on the land as farmers. Of all the crops grown, the most important is rice. The rice plant likes a very hot, wet climate. It likes to grow in the water when it is very young, and we see the farmers planting the little rice plants while the flat fields

are flooded. Rice, too, likes rich soil. Where do we find good rich soil in a hot wet climate in India and Pakistan? Chiefly in the Lower Ganga and Brahmaputra valleys, and the delta region near Calcutta both in West Bengal (India) and East Pakistan and all along the coasts of Peninsular



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FIG. 38.—Map showing where some of the useful plants are grown.

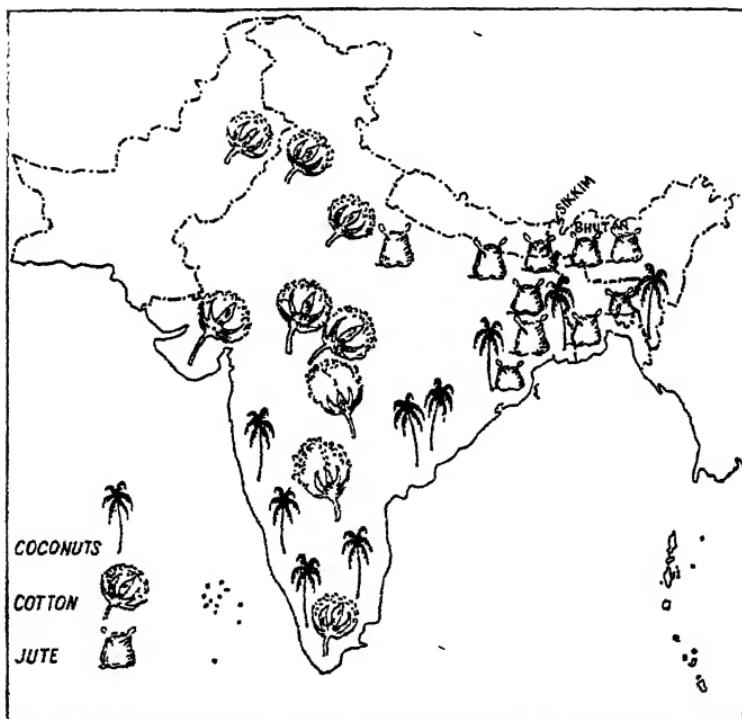
India. In some places where there is not enough rain, rice is grown by irrigation, which means that the fields are flooded artificially.

2. Wheat and Barley.—Just as rice is the chief food of people who live in hot, wet places, so wheat is the chief



FIG. 39.—Coconut palms growing round a village. Notice here the houses are built of bamboo and are thatched with grass and palm leaves

food of people who live in drier regions of the north. We find wheat growing in countries much colder than India and Pakistan, such as Canada, Australia, and Argentina, and it is used by the white people as their chief food. In Northern India and especially in the Punjab, wheat is used as the chief food of the people. The difference between wheat grown



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FIG. 40.—Map showing where some other useful plants are grown. in our country and that grown in other colder countries, is that our wheat ripens during the cold season, and is called a winter crop, while in colder countries it ripens during the hot season, and is called a summer crop. Our hot

weather would burn up the little ears of wheat, so ours ripens during the sunny, cold season. Both wheat and barley grow in the north and north-west but wheat likes the richer parts of the land.

3. **Millet.**—This plant is also a 'grain' crop, like rice, wheat, and barley. It is grown chiefly in the drier parts of the Deccan, where it forms the chief food of the people living in those areas.

4. **Maize** is grown for its grain, and is also called Indian corn. Its leaves are used to feed cattle. It grows with millet, but can also grow in wetter places.

5. **Sugar-Cane.**—We find sugar-cane growing all over India, but it is chiefly grown in the Upper Ganga valley. In recent years many sugar factories have been built and we can now supply our own needs.

6. **Pulses.**—The word 'pulses' means all the beans, peas, gram, and lentils, which we use in our vegetable curries. Pulses are grown all over India and Pakistan, and are used for both man and animals.

7. **Cotton.**—This is a very important crop in India and West Pakistan and is grown chiefly in the Deccan, where the black soil is rich and sticky, and where the rainfall is not very heavy. The chief cotton-growing region lies behind Bombay. We find cotton growing, too, in the Punjab (I), but there some of the seed has been brought from another country called America. This seed is rather difficult to grow in India as the land has to be irrigated, but gives better cotton than the India seed.

8. **Jute** is grown in the Ganga delta especially in East Pakistan. From the stems of the jute plant, we get a strong fibre which is used for making sacks and bags. The Ganga delta is the only place in the world where jute is grown.

9. **Coconuts** are grown in the wet region along the coasts. We get coconut oil, copra, and coir from the

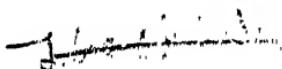
coconut palm. The oil is used for making margarine, and for cooking. The copra (dried nut kernel) is used for making soap, while the fibre (coir) is used for making mats.

10. **Tea.**—The tea plant likes a well-drained soil but heavy rainfall, and therefore grows best in wet, hilly regions. We find tea growing in Assam, on the slopes of the Himalayas, near Darjeeling, and in the Nilgiri Hills in Southern India.

11. **Tobacco.**—A little is grown all over India and in the two Punjabs, but we use nearly all of it in our own country. Tobacco likes a good rich soil, and often grows along the banks of rivers. The lankas or islands in the mouths of the Godavari and Krishna produce good tobacco.

EXERCISES

1. What are chief crops grown for food in India? Where are they grown?
2. Where is cotton grown and why?
3. Draw a map of India and Pakistan showing where wheat, rice, and millet are grown.
4. What products do we get from the coconut palm?
5. How many of the plants about which we have spoken are grown near our school? Collect as many of them as you can find.



CHAPTER XXII

USEFUL MINERALS AND WHERE THEY ARE FOUND

BEFORE we talk about the minerals of India and Pakistan we must be quite sure that we know exactly what a mineral is. If we pick up a piece of rock we find that it is not really a simple thing, but that it is made up of many tiny pieces. These tiny pieces are stuck very tightly together, and so form

the whole rock. If we look very carefully at the little pieces we shall find that they are not all exactly alike. Some of them will look darker than others, and some will look clearer than others. These little pieces are different minerals. Sometimes we find a rock which consists of one mineral only. Other rocks may have many different kinds of minerals in them, and others still only two or three kinds. So we learn that if we want to find minerals we must make a hole in the ground and dig out the rocks.

There are many kinds of rocks in India and Pakistan. Some of them are quite soft like sand or sandstone or clay, and others are much harder like granite. The soft rocks are easily washed away by rivers, and so we find them in the low parts of the country. The valleys of the Ganga and the Brahmaputra, and the Ganga and Indus deltas are made of soft rocks. The hard rocks stick up out of the earth as mountains. They are more difficult for the rivers to wash away, and so they are left behind as hills. The Himalayas and the Deccan are made of hard rocks.

Many of the minerals we find in the rocks are of no use to man. So we only have to think about the useful ones. Unfortunately India and Pakistan are rather poor in many minerals, but have good supplies of others. We must study what minerals there are and see where they come from.

1. Oil.—Oil is found in the north-west corner of the Punjab (Pakistan) and in Assam (India). Oil is really a mineral, although it is a liquid. It comes out of the rocks, and the best way to get it is to make a small hole deep into the earth and then push a pipe into the hole. The big wooden structure over the well is called a derrick. Inside is the machine for pumping up the oil. We get other oils too, such as groundnut oil and coconut oil. These are called vegetable oils, because they are got from plants and trees. The oil that comes from the rocks is called mineral

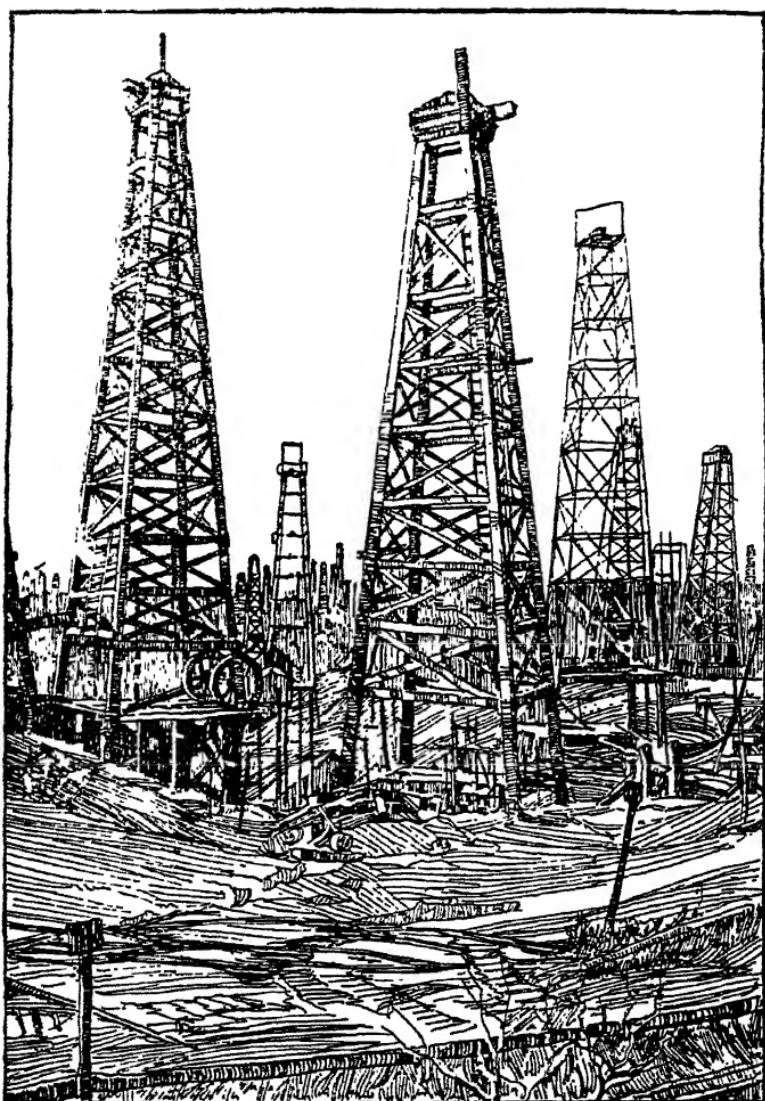
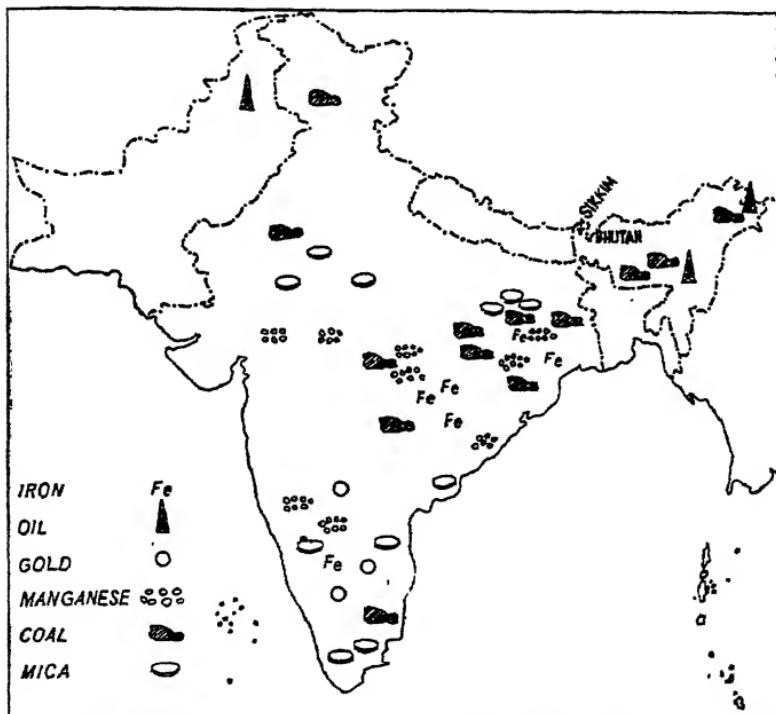


FIG. 41.—Oil wells.

oil. Its other name is Petroleum. If you look at Fig. 42 you will see the little oil derricks drawn there, one in West Punjab and some in Assam. (Much of the oil we use in India came from the country of Burma, which has very rich oilfields.)



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FIG. 42.—Map showing where the useful minerals are found.

2. **Gas.**—Large deposits of natural gas have been found at Suri in West Pakistan and is sent through a great pipe to Karachi and the Punjab.

3. **Coal.**—There is one fairly large and rich coalfield in India, situated towards the eastern corner of the Chota Nagpur Plateau, on the borders of Bihar and West Bengal. Notice the little black patches of coal marked on the map. There are one or two smaller coalfields in India, but they are not very important.

4. **Gold.**—Gold is found in various parts of the country, the most important field being at Kolar in Mysore.

5. **Manganese.**—This mineral is used in the iron industry for making steel. It is therefore wanted in large quantities by those countries which have important iron works. Madhya Pradesh is very rich in manganese, and so India sends large quantities of this mineral to other countries every year. It is also found near Visakhapatnam.

6. **Mica.**—Mica is a mineral which is found in the hard old rocks of the Deccan, especially in Andhra Pradesh. It splits up into thin sheets and looks very like glass. It is very useful, as it can bear great temperatures without melting, and is used as windows in furnaces. (A furnace is a very big oven used for melting metals.)

7. **Iron Ore.**—India has quite large quantities of iron ore in her rocks, but most important is the iron ore which is found near the coalfields. At present iron ore is mined chiefly in one place in the north-east of the plateau and is smelted at the great works at Jamshedpur, near the coal-field. We hope in future to work more of our iron, which would enable us to produce all the iron goods we want in our own country instead of having to send to other countries for them.

Let us, then, remember the following things about the minerals of India and Pakistan:—

1. The most important mineral produced in India to-day is coal.
2. India and Pakistan are rather poor in minerals.

3. There are small quantities of petroleum found in India and Pakistan, but most oil comes from outside.
4. Manganese is very important as one of the minerals which India sells to other countries.
5. Aluminium will most likely become a very important mineral product of India in the future.

EXERCISES

1. Collect and bring to school as many different kinds of rocks as you can find. Be very careful that you remember where you found them.
2. Where does petroleum come from, and for what is it used?
3. Name all the things you have ever seen which were made of gold.
4. Name anything you use at home which has come out of the rocks.
5. What are the most important minerals in India and Pakistan? How are petrol, mica and manganese useful to us?

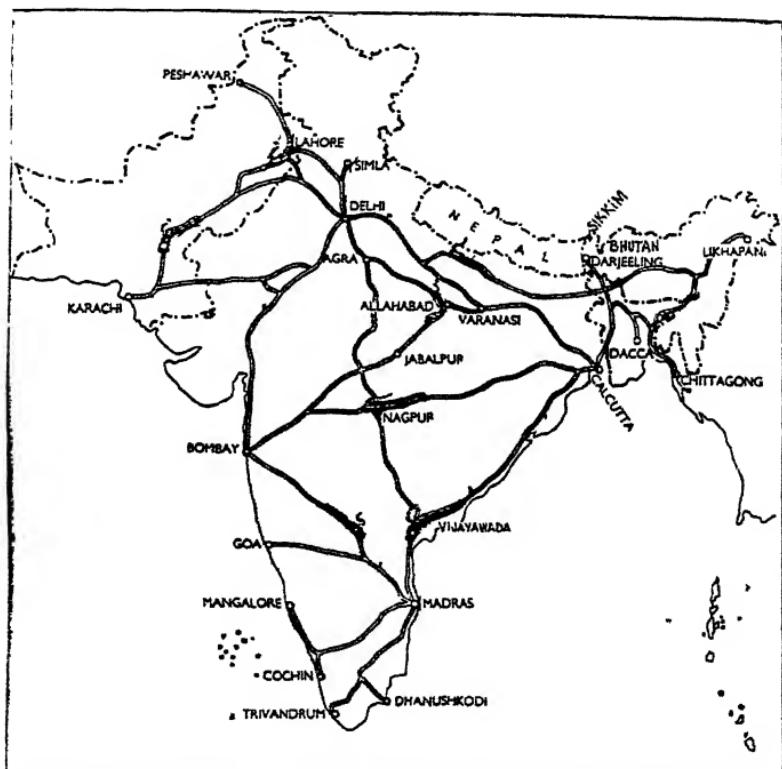
CHAPTER XXIII

HOW THE USEFUL THINGS ARE CARRIED FROM ONE PART TO ANOTHER

EXCEPT in the Ganga delta, almost all travelling in India and Pakistan is done on land. Wherever it is possible, it is far cheaper to send goods from one place to another by water than by any other way. Water travelling, however, is very slow, and in most parts of India and Pakistan the waterways, whether rivers or canals, are used for irrigation rather than transport.

1. **Railways.**—The most important way of travelling in India is by railway. You may have noticed if you have ever gone on a train journey that the train ran on the lines. These lines, of course, fitted the distance between the wheels of the train exactly, and were the same distance apart all the

way on the journey. As we have learnt before, on some railways in India and Pakistan that distance is bigger than in others. There is the 'Broad Gauge', where the lines are 5 feet 6 inches apart, and the 'Metre Gauge', where the lines are 3 feet $3\frac{3}{4}$ inches apart.



'SIKKIM AND BHUTAN STATES ARE ATTACHED TO INDIA BY SPECIAL TREATIES

FIG. 43.—Map showing the chief railway lines.

Look at the map, Fig. 43. Let us imagine that we are in Calcutta. We can go to almost any important town in India by railway from this city. We can travel to Bombay on the Eastern Railway (old E.I.R.), through a

portion of the Northern Railway (old E.I.R.) and the Central Railway (old G.I.P.) via Allahabad and Jabalpur or by the South Eastern Railway (old B.N.R.) and the Central Railway (old G.I.P.) via Nagpur. We can also travel right up the Ganga valley to Delhi and the Punjab by the Eastern and Northern Railways (old E.I.R. and E.P.R.) and to Madras by the Eastern and Southern Railways (old B.N.R. and M. & S.M.Rly.).

From Madras we can cross Peninsular India to Bombay by the Southern Railway and the Central Railway via Raichur and Poona, or to Goa, to Mangalore and Cochin by the Southern Railway. From Madras, too, we can take the train southwards to Dhanushkodi, which is the railhead for Adam's Bridge, about which we spoke in Chap. XIV.

Let us now visit Karachi. We can travel from Karachi by the North Western Railway (N.W.R.) to Lahore and the North-West Frontier parts of West Pakistan.

2. Roads. There are two kinds of roads in India, 'metalled' and 'unmetalled'. Metalled roads are those whose surface has been made level by stones laid upon them and rolled flat by steam-rollers. These roads are kept in order by the P.W.D. One of the most famous metalled roads in India is the Grand Trunk, which was built before the railways, and runs from Calcutta to Peshawar via Delhi. From Madras there are three good roads. One runs north to Calcutta, another west to Calicut, and the third to the frontier of Travancore-Cochin.

There are also good roads from the plains to the hill stations of Darjeeling and Simla.

The unmetalled roads form a network all over the country joining the villages. Bullock-carts are the commonest traffic on these roads, and a great deal of the products is carried from one place to another in this way.

3. Airways.—Regular services of aeroplanes, carrying

passengers and mails now connect the chief cities in India and Pakistan. Delhi is connected with Calcutta, Bombay and Madras by way of Nagpur. Karachi and Lahore have air connections with Dacca, the capital of East Pakistan.

THINGS WE MUST REMEMBER ABOUT TRANSPORT IN INDIA

1. The cheapest kind of transport is by boat, but this way is not used very much in India, because the rivers and canals are used chiefly for irrigation.
2. Railway transport is dear but quick and reliable, so the most valuable products are sent by this way. Many thousands of pilgrims use the railways in India every year.
3. Bullock-carts are used all over the country. They are cheaper than the railway but take a very much longer time to go from one place to another. They are used chiefly for short journeys.
4. In recent years aeroplanes are used for carrying passengers and mails between the principal cities of India.

EXERCISES

1. The next time you travel by train, try to see what goods are being carried in the goods wagons.
2. What are the two kinds of roads we find in India? What is the chief difference between them?
3. How could you travel from Calcutta to Bombay, Delhi, and Madras?
4. Where is the Grand Trunk road? What goods would travel along it?
5. What are the chief cities connected by airways?

CHAPTER XXIV

WHERE PEOPLE LIVE

IN Chap. VIII we learnt about the different kinds of people living in India and Pakistan and where their homes are. In this chapter we are going to learn whereabouts in India most people live.

Most people like to earn plenty of money or to have an easy life. In order to do this, they must live in places where it is easy to make money or easy to grow food. One of the easiest ways of making money in India and Pakistan is to grow something such as paddy, or jute, or wheat, or cotton. So we find most of the people living in those places where it is easy to grow things. So we say that the population is densest where there are fertile lands and a good supply of water. Look at Fig. 44, which shows you where the fertile lands are.

You will see that there are very rich lands for growing wheat, paddy, and jute in the Ganga valley, especially in Bengal. You will see, too, that all over the Deccan, except in the north-eastern part, that people grow quite large quantities of millet and cotton. You will also notice that in the Thar Desert, east of the Indus and the land west of the Indus, very little can be grown, because there is not sufficient water. Now look at Fig. 45, which shows us where most of the people live. Compare this map with Fig. 44, and you will see that most of the people live in fertile lands, and that very few people live on the poor lands. Notice that there are most people to the square mile living in the Ganga valley, all along the coasts of Peninsular India, and in the richest parts of the Deccan. There are very few people living in the Thar Desert, and high up in the Himalayas, and also in the dry barren North-east Deccan (the Chota Nagpur Plateau).

Where there are many people living we say that the population is 'dense', but where there are very few people living we say the population is 'scanty'.

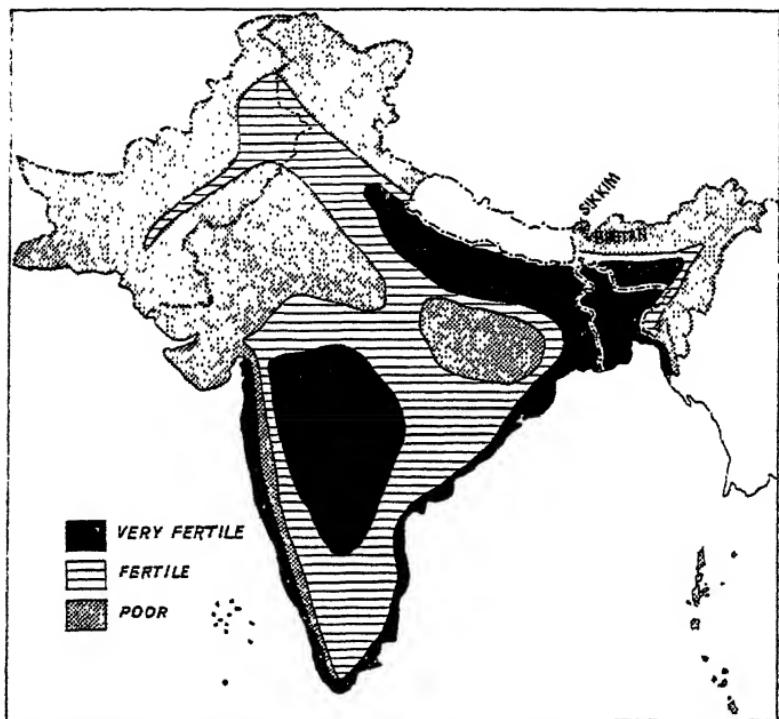
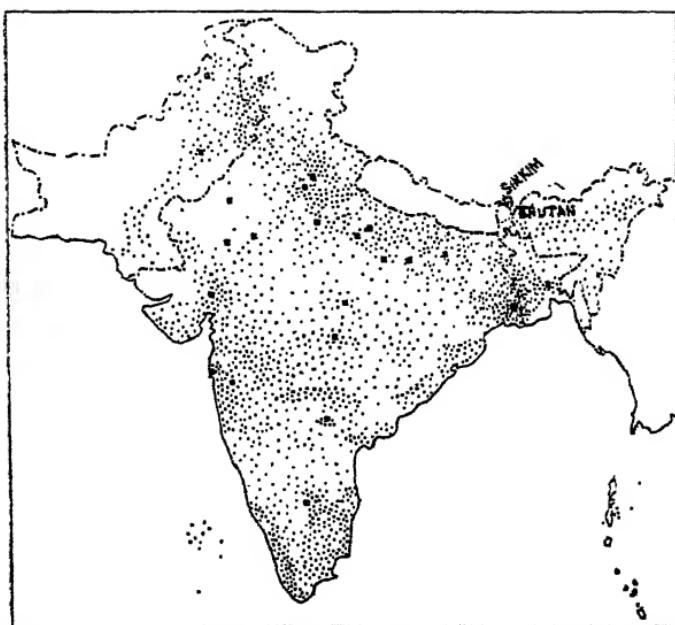


FIG. 44.—Map showing the fertile lands.

Let us sum up Fig. 45:

1. Dense population in the Ganga valley, the coasts of Peninsular India, and in the Punjab.
2. Less dense in the lower Indus valley (depending on irrigation), and in the northern Deccan.

3. Scanty population in the Thar Desert and country west of the Indus, and in the Himalayas, and in the Chota Nagpur Plateau.



SIKKIM AND BHUTAN STATES ARE ATTACHED TO INDIA BY SPECIAL TREATIES

FIG. 45.—Map showing where most of the people live.

Although most of the people live in the country near their fields, there are a number of towns in India and Pakistan, in fact far too many for us to remember as yet. But we may learn the names and positions of some of the very big towns (cities) which are of great importance.

CITIES OF INDIA

1. Calcutta (with Howrah) is the biggest city in India. It is built on the Hooghly River on the western side of the Ganga delta. Besides being the largest city in India, it is the most important port, for all the goods produced in the

Ganga valley which are to be sent to other countries pass through Calcutta. It has a splendid position as a port, because it is within easy reach of the very richest lands in India, the Lower Ganga valley and the delta.



SIKKIM AND BHUTAN STATES ARE ATTACHED TO INDIA BY SPECIAL TREATIES

FIG. 46.—Map showing the chief towns and cities.

2. **Bombay.**—Bombay is the great rival port of Calcutta. Bombay, the second largest city in India, is built on an island facing the mainland, and has a very good safe natural harbour. The cotton grown on the Deccan behind Bombay is sent to that city, either to be sent away to other countries

or to be made into cloth in the cotton mills there. Bombay has one great advantage over Calcutta, in that it is much nearer Europe. We shall hear more about that later.

3. **Madras.**—Madras is the third largest city in India, but its population is less than half that of Bombay. Like Bombay, Madras is a port, but its sea trade is quite small. It is the capital of the State of Madras. Unlike Bombay, it has no good natural harbour. Men have built a very big strong wall, called a breakwater, out into the sea to protect the ships which call at Madras from the heavy waves of the Bay of Bengal.

4. **Delhi.**—The old city of Delhi has been the capital of India for many years. You will learn in your history lessons that from time to time India has been invaded by people who have entered the country from the north-west. These people have always marched towards the fertile Ganga valley. If you look at Fig. 46, and then find the position of Delhi in Fig. 26, you will see where the city of Delhi lies. It is sometimes called the Key of India, for whoever holds Delhi, can command the fertile Ganga valley. The invaders therefore always tried to take Delhi, and it was usually the centre of government and the capital of the Indian Emperors.

CHIEF TOWNS IN THE GANGA VALLEY

There are, of course, many towns in this fertile valley, some of which are very old and sacred. Let us look at Fig. 46 and notice the position of the chief ones. North-east of Delhi lies *Meerut*, a collecting centre for local products. South lies the old town of *Agra*, which was sometimes used by the invaders as the capital instead of Delhi. Find, too, *Bareilly*, *Lucknow*, and *Kanpur* which are also collecting centres for the surrounding country. *Allahabad* lies at the point where the Jumna joins the Ganga. This

is a sacred town, and is visited by many pilgrims. It is also an important railway junction, and the Government centre for the rich Uttar Pradesh. East of Allahabad lies *Banaras*, also a very sacred town, where many pilgrims come every year to bathe in the holy river. East, again, of Banaras lies *Patna*, the Government centre of the State of Bihar.

Calcutta, about which we have already spoken, is a fairly new town, which has grown up owing to the growth of the jute milling industry and the increase of India's foreign trade.

CHIEF TOWNS OF WEST PAKISTAN

Karachi, until recently, was the capital of Pakistan. The town lies to the west of the Indus delta. Its port is the natural outlet for the rich wheat and cotton lands of the Punjab. It has a large air port and is the most westerly seaport in the Indian Sub-continent.

Hyderabad (Sind) is situated on the east bank of the river Indus.)

Lahore is the capital of the Punjab (P). It is an old capital and an important trading and railway centre.

TOWNS AT THE GATEWAYS INTO WEST PAKISTAN

There are three of these towns in the north-west of India. *Rawalpindi*, the new capital of Pakistan, which is the starting-point of a route into *Kashmir*; *Peshawar*, which governs the route to *Kabul* in Afghanistan via the Khyber Pass; and *Quetta*, which governs the southern route to Afghanistan via the Bolan Pass.

CHIEF TOWNS OF EAST PAKISTAN

Dacca, the capital of East Pakistan, was an important town even 300 years ago. It is the centre of a rich agricultural region.

Chittagong is the port for the whole of East Pakistan.

CHIEF TOWNS OF PENINSULAR INDIA

Jabalpur is on the main route from the Deccan to the fertile Ganga valley. It is a railway junction. *Nagpur* farther south is the collecting centre for the very fertile country called the Deccan lavas region, where most of the cotton grows. *Hyderabad* is the capital of the State of Andhra Pradesh. *Bangalore* is a railway junction and the most important town in Mysore. *Thiruchirapalli* is a very old religious centre in the southern part of Madras State and with *Madurai*, is a local collecting centre.

Kozhikode on the west coast is a town of growing importance. It is the centre of trade in timber.

EXERCISES

1. Draw a map of India and Pakistan showing by little men where most people live.
2. Why do so few people live in the mountains?
3. Draw a map of India and Pakistan and mark on it the chief rivers and the towns mentioned in this chapter.
4. Why are *Delhi*, *Calcutta*, *Bombay*, and *Peshwar* important towns?
5. Say what you know of *Banaras*, *Dacca*, *Madras*, *Simla*, *Hyderabad*, and *Allahabad*.

CHAPTER XXV

WHAT WE DO FOR OTHER COUNTRIES

SOME men earn their living by selling things to other people. If we cannot grow enough paddy or wheat in our fields we have to go to a man who has paddy or wheat to sell, and we buy enough for our needs. If our mother cannot weave enough cloth for our clothes we have to go

to the bazaar and buy some which has been made by other people. I want you to think of our country as a shopkeeper. When people have not got enough of certain goods they send to our country to buy them.

These are the chief things which India and Pakistan have to sell.

1. Raw Cotton.—We have learned that India grows a great deal of cotton, but that cotton is not of a very good quality. Much of it India keeps for her own use, but she sends some of it to Japan and Italy, where the people need cheap cotton clothing. Big ships carry the cotton away to Japan and Italy from the port of Bombay.

2. Jute.—We spoke about jute in Chap. XXI, and we saw how all of it is grown in the Ganga Delta region. It is a very useful product to all countries, for it is very strong and very cheap. It is woven into a coarse cloth which is used for making sacks and gunny bags. All countries which have products such as cotton, grain, wool, etc., use these jute bags. So you see jute is needed all over the world, and as India and Pakistan are the only countries in the world which grow jute, there is a big demand for it from nearly all countries. Much is grown in Pakistan and exported (sent away) from the small delta ports and Chittagong, but West Bengal (India) also grows jute and has many mills.

3. Tea.—Tea is grown in Assam and along the slopes of the Himalayas near Darjeeling. We send most of our tea to the United Kingdom and to other parts of the British Commonwealth. Nearly all the tea is exported from Calcutta.

4. Oil Seeds, such as sesamum, rape, groundnuts, mustard seed, etc. are sent to France and Italy from Calcutta. Those countries use them instead of the better olive oil for making soap.

5. **Leather and Hides** are produced all over India, and are sent from the three ports of Karachi, Calcutta, and Madras. They are sent to many countries all over the world.

There are several other products which we send away to other countries. The chief are lac, ores and metals, wool, and spices.

Now let us collect all these facts together.

1. The things we send away to other countries are called 'exports'.
2. The most important exports are sent from the four chief ports of Calcutta, Bombay, Karachi, and Madras.
3. Calcutta exports jute, tea, lac, oil seeds, leather, and hides. Bombay exports cotton. Karachi exports cotton, wool, hides and leather. Madras exports hides and leather, and some oil seeds.

EXERCISES

1. What do you mean by the word 'export'? Why does India 'export' certain goods to other countries?
2. What are the chief exports of India and Pakistan?
3. What do the United Kingdom, France, Italy, and Japan buy from us?
4. What is jute used for? From which ports is it exported?
5. Make a model of a sack of wheat, a bale of cotton, and a chest of tea. Label them, saying from whence they have come and where they are going to.

CHAPTER XXVI

WHAT OTHER COUNTRIES CAN DO FOR US

WE said in the last chapter that India and Pakistan were shopkeepers. Most shopkeepers who sell silks and cotton goods have to buy for themselves rice and vegetables, and those shopkeepers who sell rice and vegetables have to buy sandals and cooking-pots. It is just the same thing with a country. India sells cotton, jute, tea, oil seeds, leather, and many other things of which she has too much for her own use, and she has to buy other things which she cannot produce herself.

India and Pakistan buy a great many things from other countries. Here are some of the most important.

1. **Manufactured Cotton Goods.**—India and Pakistan sent some of their raw cotton away to other countries and used to buy in return the best quality cotton goods from Lancashire in England, and the cheaper kinds from Japan. Calcutta, Bombay, Karachi, and Madras all used to import (take in from other countries) cotton goods.

2. **Iron and Steel Goods and Machinery.**—At present India produces only some of the iron and steel goods and machinery she needs. So she buys much from the United Kingdom. These goods are sent to all the four chief ports, Calcutta and Bombay taking most, and Karachi and Madras a little.

3. **Petroleum.**—India, as we have learned before, does not produce very much petroleum, so she has to buy it from America and other countries. Burma has very good oilfields, and was sending the greater part of her oil to India in the form of kerosene and petrol.

4. **Hardware**, which includes cooking-pots and pans.

, drain-pipes, knives, and many other things, are sent India and Pakistan chiefly from the United Kingdom. They are sent to all the four chief ports.

Motor-cars are sent to India and Pakistan from England and America, glass-ware comes from England, and silk and artificial silk goods from Japan, China, Italy, and France.

EXERCISES

Why did India and Pakistan import manufactured cotton goods? When you go home, make a list of all the things in your home which were not made in our country. Bring your list to school and compare it with the lists of all the other boys, and you will see what a large number of things we have to import.

3. From where do we get our oil? For what purposes is it used?